

MĀTĒĀ DOCUMENTATION PROJECT: GRAMMATICAL LESSONS FOR LANGUAGE

TEACHERS AND STUDENTS

by

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Land Acknowledgment

We respectfully acknowledge the University of Arizona is on the land and territories of Indigenous peoples. Today, Arizona is home to 22 federally recognized tribes, with Tucson being home to the O'odham and the Yaqui. Committed to diversity and inclusion, the University strives to build sustainable relationships with sovereign Native Nations and Indigenous communities through education offerings, partnerships, and community service.

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Linguistic Abbreviations

1	first person
2	second person
3	third person
ADJ	adjective
ANI	animate
DEIC	deictic
F	feminine
IMP	imperative
INAN	inanimate
INCC	inclusive
INT	interrogative
LOC	locative
M	masculine
NOM	nominalizer
PL	plural
POSS	possessive
REF	referential
SG	singular
TAME	tense, aspect, mode, evidentiality

1.0 Abstract

This thesis is part of a continuous documentation project directly requested by a Tukanoan language community called the Mũtẽã, located in the Vaupés region of Colombia. The purpose of this paper is to create lessons that can be translated and brought back to the community. The use of these lessons will be to explain the linguistic background of Mũtẽã in a way that allows teachers and students to generate their own examples per term. Lessons within this paper will be translated into Spanish, the conduit language of this group, and taught within workshops. For these reasons, the paper is written from a pedagogical approach rather than the format usually intended for academic linguistic audiences. This group of individuals in the workshops have exhibited enormous efforts in preserving their language, and the request for this kind of material shows their ongoing desire to do everything they can in revitalizing Mũtẽã.

Within this paper, sample sentences and examples displayed within the lessons are derived from the field notes taken down by Dr. Wilson De Lima Silva and the Vargas-Acosta-Correa family. As the examples are listed, the corresponding word from the dictionary will be written directly beneath the sample with any other important identifying features. Besides the dictionary sentences, examples will also be drawn from the folk story *The Creation of the Moon*, as a story often lends itself to some of the more unique and specialized aspects displayed in the language. Each of those will also be labeled with according glossing number from DiRado-Owens' thesis analysis.

1.1 Ethnographic Information

Mütẽã is a language of the Eastern Tukanoan family. Mütẽã is spoken by approximately 600 speakers and originates from the southeast of Columbia, specifically the area around the upper Vaupés river. Other members of the Eastern Tukanoan language family reside in other parts of Columbia and Brazil. Due to the societal practices and alliances that are kept within the groups of the Eastern Tukanoan language community, marriage practice holds that over half of the men in a singular tribe will marry someone from a neighboring tribe. On top of the parents' languages, a child will also learn the main colonial language of the area, which is Spanish.

1.2 Positionality

As previously mentioned in the abstract of this thesis, my original involvement with Mütẽã was to assist in creating a dictionary. In addition to assisting with the dictionary work, I am getting more involved in other requests (ex. Grant writing and creating language lessons).

Overall, I want to clarify in my positionality that I am not a part of this language community nor am I of indigenous heritage. While I cannot undo or fully understand the struggles that these communities face, I offer myself as an ally to do the best I can in assisting them. This includes better educating myself on their struggles as well as putting effort into things such as this. Most importantly, that means doing exclusively the work that is asked for by the community.

1.3 Orthography Differences

The writing system chosen by a few members of the Mütẽã community for this work differs from what can be found in previous works done on the language. In general, these differences are due

to a Spanish influence from for this work SIL linguist Ronald Metzger, who published a grammar, dictionary, and a book of children stories. The Mũtẽã group currently working on their language refers to this system as the “Metzger system”, but do not feel it accurately represents their language variety. Collectively the group prefers this system. The changes that can be seen in the various works are reflected in the table below:

Spanish Spelling	Official Spelling	IPA sounds
q	k	[k]
c	k	[k]
j	y	[j]

Table 1.1 Orthography differences

Later in this paper, we will explore the expanse of the alphabet inventory in relation to explaining the sounds that are associated with each of those letters. As for now, this can be used as a guide when exploring other published texts. It should be notated that even in the dictionary and grammar book work, occasionally borrowed words will be written using the orthography of the language that they are borrowed from.

A question might arise to the practicality of changing the orthography system. Mũtẽã has almost exclusively been an oral language up until Metzger’s documentation. Published texts using the Metzger system are solely his publications of the dictionary, grammar, the New Testament of the bible, and his documentation of short stories for Karapanã children. Therefore, the switch between the Metzger system and this preferred system is not largely difficult for the community.

1.4 Annotated Bibliography

As previously mentioned, there are not many publications on Mũtẽã. The main data gathered for the dictionary project as well as the information for this paper is a result of the fieldwork directed by Dr. Wilson de Lima Silva with members of the group. Below I will comment on each of the available resources along with useful application of the publication.

Grammatica Popular Del Carapana: (Ronald Metzger 1983)

Metzger's first published work on Karapanã is this grammar for the language. Written entirely in Spanish, the language used in this grammar is not tailored to be understood by the people in the community, rather the audience for this kind of book is other linguists. The grammar is based on Metzger's work with the community from 1966 to 1976. The book includes extensive documentation on the language and deeply explains the grammar as the linguist understood it at the time.

Diccionario Carapana: (Ronald Metzger 2000)

The last of the published works from Metzger on Karapanã, this dictionary compiles over 1000 Karapanã words with the definitions written in Spanish and Karapanã. Each word is labeled with the part of speech according to its Spanish counterpart. The back quarter of the dictionary is comprised of a Spanish to Karapanã reference, list of abbreviations, and a brief grammar including suffixes.

The community reports that this dictionary is heavily reliant on the Spanish definitions for each word and does not accurately reflect the variety of Mũtẽã spoken in the San Antonio community,

thus necessitating the creation of a community led dictionary. However, as the only current dictionary of the language, this publication still offers a foundation in the language.

Capee apeye Queti Marĩ Pũnaa na cabuepee (Para los niños de la comunidad carapana):

(Ronald Metzger 1999)

This work is a collection of children stories from the Watiama village variety of Mũtẽã. The collection has a total of 150 stories of various genres including folk tales and poetry. Metzger attributes this accomplishment to working with the Vaupés community who both compiled the stories and assisted with translation.

The Creation of The Moon: A Community-Based Traditional Story Publication and Pedagogical

Reference for the Karapanã Language Community: (Christian DiRado-Owens 2020)

DiRadio's thesis for the University of the Arizona is the most current published work on Karapanã. The thesis goes over a brief grammatical sketch of the language and then includes the annotated story *The Creation of The Moon*. DiRadio also revises some of the information presented in Metzger's previous work with more recent information he gathered directly from the community. DiRadio's thesis is written in the preferred orthography.

1.5 Language Background

The variety of Mũtẽã documented in this thesis is based on the variety of the language spoken by the members of the San Antonio community, in the upper Papuri River in Colombia. This differs from the grammar produced from Metzger, as it was concentrated on the Watiama variety of the language.

There are a few key features to note before examining the language in more detail. Mũtẽã is a nominative-accusative language with a SOV word order. Additionally, Mũtẽã has a high preference for suffixation. The language is agglutinative, especially in regards to nouns and verbs.

1.6 Data and Examples

All examples presented in this thesis are from Vargas Duque, Vargas Correa, Alberto Vargas, and Wilson Silva's dictionary notes from 2019. All examples will be cited directly below as "Dictionary". All other examples that are not derived from the dictionary field data will be from DiRado-Owens Thesis from 2019. Additionally, these will be labeled with credit to DiRado-Owens paper underneath each example.

2.0 Grammar

This section is oriented towards language teachers. The goal is that this material can be useful to them in understanding linguistic concepts as well as assisting them in coming up with their own language lessons. In this grammar section, lessons will focus primarily on syntax and morphology. Each section will begin with a general description of the language in linguistic terms, and then include units of lessons accompanying each explanation. When exploring topics that are not lessons, such as sounds of the language, explanations will instead focus on breaking down commonly used terminology to assist the reader in understanding any additional reading material on the subject. While this thesis is mainly concerned with describing the syntax and morphology of the language, creating a bridge for comprehending other linguistic text is also crucially important.

The structure of lesson units will generally start with a learning objective and description of the linguistic terminology. Following that will be examples that show the idea as it applies to the language. After this is presented, an exercise for teachers to further their understanding by application will be included. Teachers should use these lessons not as direct plans for their students, but rather for their own understanding of the concepts that are being taught.

2.1 Sounds

When studying a language, linguists will describe the sounds of the language and how they affect each other. While this paper primarily focuses on describing the morphosyntax of M̃tẽã, the two areas of phonetics and phonology are briefly described to provide language background.

Phonetics refers to the sound inventory of the language. Phonology is how those sounds affect

each other. For more reading exploring the variety of sounds included in this language, see *The Creation of The Moon: A Community-Based Traditional Story Publication and Pedagogical Reference for the Karapanã Language Community* by Christian DiRado-Owens. DiRado-Owens' thesis on Mûtẽã will be referenced both within this sound unit as well as within the syntax section of this thesis.

2.1.1 Phonetics

As mentioned previously, phonetics refers to the sounds in the language. When linguists describe sounds, we use a system called the International Phonetic Alphabet (IPA). The IPA uses a set of symbols that are agreed upon to represent sounds consistently. The IPA is a useful tool that can be used to further understanding of the inventory of sounds any language has to offer.

The sounds of a language can be divided into two categories: consonants and vowels.

Consonants use different parts of the vocal tract, called articulators, that will either touch or nearly touch to form sounds. Vowels do not use articulators and are more dependent on mouth shape to form differences between distinguishing sounds. Consonants and vowels are important categories to differentiate between when it comes to analyzing language sounds, especially when two similar sounds are not considered distinguishable sounds. Sounds that contrast words are called phonemes. Allophones are sounds can be produced differently next to other sounds but do not contrast words. While both allophones and phonemes are included in the sound inventory, the next section covering phonology will focus more on allophones and the rules that cause them to occur.

Consonant Chart

	Bilabial	Alveolar	Retroflex	Palatal	Velar	Glottal
Stops	p b	t d			k g	ʔ
Nasal	m	n	ɳ		ŋ	
Taps		ɾ				
Fricatives		s				h
Approximants	ʋ			j		
Affricate		dʒ				

Table 2.1 Consonant Chart

Minimal pairs

Labial /b/ /p/

/b/ /bue/ ‘arco iris’

/p/ /pue/ ‘verano’

Alveolar /t/ /d/

/t/ /tutu/ ‘tronko’

/d/ /duturu/ ‘doctor’

Velar /k/ /g/

/k/ /niko/ ‘raiz’

/g/ /migo/ ‘tia’

For minimal pairs above, examples are given as both minimal pairs and near minimal pairs. The labial sounds show a set of words where if one sound differs, the meaning of the word is different. This is how we know they are separate phonemes. This becomes less obvious with our

alveolar and velar set. Instead of finding a set of exact minimal pairs, presented are the two sounds occurring in the same environment. In the alveolar example, both sounds start the word and are followed by the vowel /u/. We are able to determine that these are separate phonemes because the sounds can occur in the same environment, showing that there is not a predictable environment in which only one occurs. Similarly, our velar sounds both are fronted with the vowel /i/ and followed by the vowel /o/. Because they occur in the exact same environment, they are separate phonemes.

Vowel Chart

	Front	Central	Back
High	i	ɨ	u
Mid	e		o
Low		a	

Table 2.2 Vowel Chart

The chart above shows how we classify vowels on an IPA chart. Each of the six of the vowels found in this language have a nasal allophone. These nasal sounds do not distinguish between words, however nasal vowels occur when the vowel is part of a nasal morpheme.

As a reminder, the written IPA symbols above do not reflect the orthography used by the language. Instead, please reference the chart below (table 2.3) for the correct representation of the orthography as used in the community.

	Consonants												Vowels					
Phoneme	/p/	/b/	/t/	/d/	/k/	/g/	/ʔ/	/s/	/h/	/r/	/v/	/j/	/i/	/i/	/e/	/a/	/o/	/u/
Oral Grapheme	p	b	t	d	k	g	‘	s	h	r	w	j	i	u	e	a	o	u
Nasal Grapheme		m		n						n		ñ	ĩ	ũ	ẽ	ã	õ	ũ

Table 2.3 Orthography and Phonemes

2.1.2 Phonology

Nasalization is a suprasegmental feature of Mütëã. Most oral consonants have a nasal counterpart allophone that occurs in nasal morphemes. However, not all of the nasal allophones are realized as a grapheme in the orthography. In table 2.3, phonemes /b/, /d/, and /j/ are the only consonants that will be written when the nasal allophone is used.

In addition, all vowels can also be nasalized when occurring in a nasal morpheme. The vowels' nasal counterparts can be seen in table 2.3, but reference table 2.4 below for the allophones of the oral consonants.

Phoneme	/b/	/d/	/h/	/r/	/p/	/dʒ/	/h/
Oral Phoneme	[b]	[d]	[h]	[r]	[p]	[dʒ]	[h]
Nasal Allophone	[m]	[n]	[ŋ]	[n]	[k]	[ɲ]	[h̃]

Table 2.4 Nasal Allophones of Oral Consonants

2.2 Syntax

Syntax refers to the way that languages organize grammatical sentences. If the sentence is worded correctly, using the language's assigned components to make a logical sentence, then the sentence is considered grammatical. Syntax looks at all the pieces that have to be included for the sentence to sound right to a native speaker.

This differs from prescriptivism, also known as prescribed grammar. In some languages such as English, there are ways that are corrected to speak academically, however these don't reflect how the language is spoken in the community. These rules were implemented to modify existing language. This prescriptive grammar contrasts descriptive grammar. Linguists are not interested in changing the language by assigning new grammar. Instead, descriptivism focuses on discovery and documentation of how a language currently is. In other words, descriptive grammar is about observation and analysis.

This syntax section covers multiple topics including organization of words and morphemes (parts of words). The units outlined below are intended to be used as single concepts that can be taught to a second language learner for them to better understand how to form grammatical sentences. The order in which these are taught is not specific. If a section refers to another section, it will state so and direct you there to learn more about a topic. Each lesson will state a goal for the learner, and some include directions on how to deepen understanding.

Unit 2.2.1: Phrase Structure

Goal: After this lesson, the learner will be able to break apart their own examples and identify phrases within a sentence.

What is a phrase? A language unit or one or more words that form a constituent, or otherwise known as a grouping of words that can be moved within the sentence and still make logical sense.

Words come together to form a phrase, and phrases come together to form sentences. Breaking down a sentence allows the speaker to better understand the relationship between the words and therefore a deeper understanding of the individual words as well.

Below is a sentence of Mütēã broken down to the individual word in a table to introduce how we typically gloss, future examples will be listed in lined glosses without the table assistance:

(1)	<i>yɯ</i>	<i>mugɯ</i>	<i>kɯ</i>	<i>ya</i>	<i>wii-pɯ</i>	<i>ã-kũ-mi</i>
	my	uncle	3SG	POSS	house-LOC	be-REF-3SG.M
	mi	tio	el		casa	estar

Dictionary: “ã”-estar

“My uncle must be at home” “Mi tio debe estar en su casa”

In (2) is the same example sentence organized in phrases:

(2)	<i>yɯ mugɯ kũ ya</i>	<i>wii-pɯ</i>	<i>ãkũmi</i>
	mi tio	casa-LOC	estar
	Noun Phrase	Postpositional Phrase	Verb Phrase

A phrase can be identified by the main component, known as the **phrase head**. In this sentence, 3 phrases have been identified based on several factors. Each of these phrase heads is colored in green.

Noun Phrase: A noun phrase is headed by a noun or pronoun. This noun can be complimented by possession, suffix morphemes such as counters, and agreement markers. These will be in relation to the noun and should be considered part of the same phrase.

Verb Phrase: A verb phrase is headed by a word acting as the action item in the sentence. For Karapanã, this will usually have reference suffixes, agreement, conjugation, and other things. Again, all of these will be considered part of the verb phrase.

Adverbial/Adjective Phrase: If a grouping of words is modifying the noun or verb of the phrase, usually it will end in the suffix *-ro*. This makes it easy to identify. This type of phrase has to proceed either a noun phrase or verb phrase to be grammatically correct. They will usually be bracketed in the corresponding noun or verb they compliment.

Postpositional Phrase: A postpositional phrase usually identifies a location in which the action or event is taking place. These phrases will be identified using the suffix *-pu*.

In identifying if a grouping of words is a phrase, it is important to make sure that the word cluster can be moved as a unit.

In the examples below, the sentence will first be glossed, and then broken down into phrases.

(3) [kawĩmo]^{NP} [[okobarruku-re]^{NP} buga-ya-mo]^{VP}

niña agua.pot-REF tapar-TAME-3SG.F

“la niña tapo la olla de mingao”

Dictionary: “buga”- Tapar

In example (3), we have a transitive sentence. When the verb is acting on a direct object, the object it is acting on becomes part of that phrase. In *Unit:2.2.3*, we learn that this direct object can be, sometimes, identified using the suffix *-re*. This will help you identify that it might belong to a nearby verb phrase.

(4) [John] *ñami-pu* *kʉ* *wii-re* [*eta-ya-mi*]

John noche-LOC ? casa-REF llegar-TAME-3SG.M

“John llego asu casa por la noche”

Dictionary: “eta” - llegar

(5) [*yʉ* *wii* *tʉ* *makāna*]^{NP} [[[*koroa-ro*]^{ADJP} *hĩñawo-riha-wii*]^{NP}

1SG casa 2SG vecino bueno-NOM iluminar-casa

kʉgo-ya-ma]^{VP}

tener-TAME-3PL

“La casa de mi vecino esta bien iluminado”

Dictionary: “hĩñawo” - iluminar

This example has a lot going on inside the verb phrase. First, we have identified that there is an adjective that is preceding the noun of the sentence. This in itself is an adjective phrase.

However, the adjective phrase belongs directly to the noun it is describing. Like in the previous example where we paired the noun's relationship to the verb that was acting on it, we pair the adjective to its noun by enclosing it within the phrase.

The purpose of identifying phrases in a language is to help establish the relationships between the words. In an example like (5), the relationship between nouns and their adjectives can be compared to the verbs and their nouns. Knowing these relationships will also help learners understand why certain aspects can be maneuvered in a sentence while others have to stay in specific positions. Overall, the ability to move words in a sentence will assist in helping the learner sound more natural when speaking the language.

Creating your own examples

Follow these steps to generate your own examples:

1. Create a simple sentence using only a noun and a verb.
2. Create a sentence with a noun being described using adjectives.
3. Create a sentence where action's location is mentioned.
4. Create a sentence where the manner of action is being described.
5. Look at these four sentences and use brackets to identify the phrases. Remember when labeling phrases, some kinds of phrases will reside within other phrases.

Unit 2.2.2: Clauses



Goal: The learner will be able to identify independent, dependent, compound, and complex clauses that create a sentence.

What is a clause? A clause is the most basic syntactic unit that can be used independently and be understood. It can stand alone as a statement and forms a sentence on its own.

Independent Clause: A clause consisting of a subject and a predicate. Forms a simple sentence

(6) *y# bako buerimahoko niñamo*

1SG mamá profesora existir

“mi mamá es una profesora”

Dictionary: “niña” - indica modo de haber. Exstir

The subject is written in blue and the predicate is written in red. The subject is the topic of the sentence, while the predicate is the action described in the sentence.

Dependent Clause: A clause that cannot stand by itself. Often it comes with a word or suffix that require it to be attached to more words to make sense.

(7) *kabugoro mākaāna [bairo nĩkõã-a á etakõã]*

de:todos:modos comunidad Como:esto estar:seguir-3PL a llegar

“In any case, they were also there until the arrival.” (DiRado-Owens 2019:67)

74. DiRado-Owens *La Creación de la Luna* (2019:67)

Enclosed in the brackets is a dependent clause. In Mũtẽã, a clause that cannot stand alone might begin with a word starting with the prefix *bai-*.

Compound Clause: Two connected clauses.

- (8) *a* *yɯ* *abo-kɯ-re,* *wɯ* *nekoa-ya-mi*
 gavilan 1SG gallina-3SG.M-REF volando llevó-TAME-3SG.M

“El gavilan vino volando y se llevó mi gallina”

Dictionary: “a” -gavilan

In some languages, a compound clause will be connected using a compound word like “and” in English or “y” in Spanish. In Mütěã, the compound is represented through the juxtaposition of the verbs. They are listed sequentially towards the end of the sentence, the second one being the only verb that takes conjugation such as agreement.

Complex Sentence: A clause containing both an independent clause and a dependent clause.

Below is an example sentence that contains both, and thus is considered a complex clause.

Because of the nature of complex sentences, this is broken down into a table for convenience:

(9)	<i>ñãmirekomakabero</i>	<i>mākãpure</i>	<i>usawākãñũpu</i>
	ñãmirekomaka-bero	mākã-pu-re	usa-wākã-ñũ-pu
	medianoche-después	comunidad-LOC-REF	bañar-despertarse-TAME-3SG.M

“After midnight in the community, he would wake up and bathe” (DiRado-Owens 2019:51)

8. DiRado-Owens *La Creación de la Luna* (2019:51)

In this sentence, the first two words are the parts forming the dependent clause, and the third word is an independent clause. Another way to check to see if the word is an independent clause is to say it on its own and see if it forms a simple sentence.

In the first word of (9), our suffix *-bero*, acts as a dependent marker. This causes this sentence to rely on other parts being attached in order for the sentence to make sense.

Unit 2.2.3: Arguments and Adjuncts

Goal: The learner will be able to identify the difference between an adjunct and an argument within the language

What is an argument? An argument is a subject or an object required for the sentence to make grammatical sense. Often, the predicate will be classified in terms of how many arguments is needed. Frequently, these will be noun phrases. (see Unit: 2.2.1 Phrase Structure)

(10) *kāmāsō-kʰ amōna-re akʰ-ya-mi*
 hombre-M gallina-REF espantar-TAME-3SG.M
 “El hombre espantó las gallinas”

Dictionary: “akuo” - espantar

(11) *jhon kʰ paku-re bau-ya-mi*
 Jhon 3SG.M.POSS papá-REF parecer-TAME-3SG.M
 “Jhon se parece a su papa”

Dictionary: “bau” - parecer

In these examples, the argument is marked with a suffix *-re*. Notice how in both of these examples, the argument proceeds the verb.

Additionally, the subject of the sentence is considered one of its arguments. In (9), this would be the word *kāmāsō-ku* “hombre”, and in (11), “Jhon”. Because these two sentences have two arguments each, they are considered “transitive” sentences. If the verb of the sentence only takes one argument, it would be considered an “intransitive” sentence.

What is an adjunct? An adjunct is an additional complement that is not required for a sentence to make sense. This will give the sentence more information and context. Usually, these will be referencing a time or manner in which the event takes place.

(12) *kaparā* *ka* *hūārā* *niña-ma* *wii-re*
 much rojo mosquito existir-3PL house-REF

“hay muchos mosquito rojos en la casa”

Dictionary: “hūārāmu” - mosquito

(13) *pino* *baua-ya-mi* *ria-p#-re*
 anaconda aparecer-TAME-3SG.M rio-LOC-REF

“la anaconda aparecio en el rio”

Dictionary: “baua” - aparecer

In these examples, the adjunct is marked with the suffix *-re*. In both examples, the adjunct comes after the verb. For both sentences, if the marked word was removed, the sentence should still be grammatical.

Notice how in all of these examples, both adjuncts and arguments are marked using the *-re* reference marker. This can help you identify the target word when analyzing your own sentences. Identify the word with the reference marker and ask “can this be removed from the sentence and still make sense?”. If the answer is no, you have an argument.

Creating your own practice

To create examples to either practice or teach, follow these steps:

1. Identify three to five verbs you’d like to use in a sentence. Try to include verbs of a single person doing an activity, a person doing something to an object or other person, and an activity that takes place somewhere.
2. Write out your sentences and circle the nouns.
3. Identify if the sentence would make sense without the circled nouns. If the answer is no, label it an argument. If it can be removed, label it as an adjunct.

Unit 2.2.4: Verb Agreement

Goal: After this lesson, the learner will be able to define what verb agreement is and identify it in the verb word.

What is verb agreement? Verb agreement is when part of a verb receives a marking that either agrees with the subject or object. This marking will take features from the subject or object, such as gender, number (plural vs. singular), and person.

In Mũtẽã, the marking is shown as a suffix agreeing with the subject. The suffix will agree with the subject's gender, number, and person. Below are examples of how we can see that the verb agrees with the subject and not the verb.

Third person feminine singular -mo

(14) **yu** **pako** bati mena biarũ *kenoña-mo*

POSS mamá yapura con quiñapira arreglar-3SG.F

“mi mamá pone yapura en la quiñapira”

Dictionary: “bati”- yapura

(15) **yu** **pako** poka *ateya-mo*

POSS mamá fariña tostar-3SG.F

“mi mamá tuesta la fariña”

Dictionary: “ate” - tostar

The subject is bolded in both of these examples, and the object is underlined to assist in identification. The subject is third person singular female *yu pako* “my mom” in both examples. The suffix is both the same given the same subject, but the object in both sentences is different, i.e., in (x) the object is X, while in (y) the object is Z.

(16) *karoa-ro* *mahũ* *basakũ-mo*

bonito-NOM persona cantar-3SG.F

“La persona bonita canta”

Dictionary: “basa” - danzar, baile, canto

The third example above allows us to see that the verb suffix cannot be based on the object because there is no object in the above sentence. We know that the singer is female, and given the suffix *-mo*, we can safely label that suffix as verb agreement for a singular feminine third person.

Creating your own practice

To identify more verb agreement suffixes, follow these steps:

1. Write a sentence using a transitive verb with a singular subject.
2. Write the same sentence, but change the object of the sentence.
3. Write a third sentence where the subject has the same gender and number as your first two sentences.

Following these steps should generate a verb ending in the same suffix. To contrast with this example, follow these steps:

1. Write a sentence that has the same verb as the first sentence, but change the subject to a different gender. Take note of what part of the verb changes.
2. Write a sentence that has the same verb as the first sentence, but change the subject from singular to plural. Take note of what part of the verb changes.

A combination of the above steps will help you and your students start to form a pattern of verb agreement. You can always check your transitive sentence verb agreement that you identified is correct by creating a sentence with the same subject but with an intransitive verb.

Unit 2.2.5: Non-Verbal Predicate

Goals: The learner will have the ability to define a non-verbal predicate and copula. In identifying the copula, they will also be able to redefine the predicate based on its composition.

What is a non-verbal predicate? A non-verbal predicate is when a sentence that has a predicate headed by a noun or adjective instead of being headed by a verb. This can happen for a number of reasons, but usually occurs when the predicate is equational to the subject of the sentence.

(17) *y# bako buerimahoko niña-mo*

1SG mamá profesora existir-3SG.F

“mi mamá es una profesora”

Dictionary: “niña” - indica modo de haber. Existir

This was an example used in *Unit 2.2.2: Clauses*. We will review it again as it shows how to write equational sentences. For example (17), an extra word can be added as a **copula**. A copula is a word or part of a word that can act as a verb linking the meaning between the subject and the predicate. This is bolded at the end of the sentence. The word copula comes from the Latin word meaning “linking”. In M̃tẽã, the copula acts similarly to the verb in that it takes verb inflection and agreement.

The sentence above in (17) demonstrates a **predicate nominal**. The predicate of this sentence is headed by the noun rather than the verb, as the verb is a copula. Mũtẽã will show that the subject is the same entity as the predicate with the copula, but it is important to remember that the copula is not the head of the phrase.

- (18) *mũipũ pakũ kaĩni-pũ* [*maloka-pũ* *ana-kũ-mĩ*]
 sol padre ser.PERF-2SG.M casa.comunal-LOC estar-TAME.3SG.M

“He, who was the Father of the Sun, was in the longhouse” (DiRado-Owens 2019:49)

2. DiRado-Owens *La Creación de la Luna* (2019:49)

Another thing to note in (18), we have something called a **predicate locative**. This occurs when describing the main subject being in a location. The predicate locative is enclosed in brackets to assist in identification. As used in (17), the bolded part of the sentence is another type of copula that can be found in the language.

Subsection 2.2.5.1: Possessive Clauses

Possessive clauses use copula similar to the predicates described above. They differ from possessive nouns in that they are not directly relating the two noun phrases together in the usual possessive manner. The copula that is used will be verb-like copula such as “have”.

- (19) *yũ* *pakũ* *kũko-e-mi* *yũ* *a-pũ* *yũa* *tie-re*
 mi padre DEIC-NEG-3SG.M 1SG vamos-3SG.M así DEM.IN-REF

makãñĩsia bai-bũ

buscar ser/vamos:como:esto-hablar

“”My father does not (have) them (feathers) so I am going to search for them,” he said.”

(DiRado-Owens 2019:86)

152. DiRado-Owens *La Creación de la Luna* (2019:86)

The possessive clause in (19) is identified using a bolded font. While this is a negative possessive clause, it does display the linking verb indicated through verb agreement.

Unit 2.2.6: Evidentiality

Goal: The learner will be able to define evidentiality and be able to identify it within sentences.

Evidentiality is a grammatical structure found in some languages that expresses how the speaker knows the information they are saying through marking on the verb. Mũtẽã has multiple evidential markers, it is ungrammatical to make these statements without including the information encoded in the evidential morpheme.

“-ya”: Past ongoing event directly witnessed

(20) *makanũkũ yai kũ piko weronatri-ya-mi*

? tigre 3SG.M cola lamer-TAME-3SG.M

“El tigre esta lamiendo su cola”

Dictionary: “wero”- lamer

“-yu”: Secondhand information, used for traditional stories

“-w”: Used for historical or ancient past passed on as cultural myth

(21)	<i>tirimu-pu-re</i>	<i>bai-yu-pñ</i>	<i>i-w-ã</i>
	día.tiempo-LOC-REF	como:esto-TAME-3SG.M	decir-TAME-3PL

“They said that it happened a long time ago” (DiRado-Owens 2019:49)

1. DiRado-Owens *La Creación de la Luna* (2019:49)

In reading stories such as *The Creation of the Moon*, it is easy to gather a plethora of examples such as the ones above that exhibit different types of evidentiality morphemes.

Creating your own examples:

To elicit examples for evidentiality, take turns with your peers telling stories. These can be stories they experienced or stories they heard. Write down what they say word-for-word and circle all the verbs. When focusing on the verbs, you will be able to see the different kinds of evidential morphemes and context will tell you which information is encoded.

Subsection 2.2.6.1: Aspect and Modality

What is aspect? Aspect refers to a language’s grammatical structure that communicates the view of the event, like if it is ongoing or something that happened for a specific period of time. M̃tẽã communicates aspect as part of the evidential morpheme that we discussed in Unit 2.2.6. Because evidentiality discusses if an event is witnessed or reported, logically stating this will tell a listener that the event has already ended or it is continuing.

What is modality? Modality is the way the language expresses the speaker’s attitude towards the probability of the event. M̃tẽã expresses this as a part of the verb, which also is encoded in that evidential part of the word. The attitude of the probability of the event is directly linked with understanding the aspect of the event. If an event is ongoing, there is a possibility that the event may or may not be completed. However, if an event is finished, that is reported as a known event through that evidential morpheme.

(22) ĩ *yasi-kõ-ñu-pu*

decir pederse-COMPL-TAME-3SG.M

“They said he disappeared completely.” (DiRado-Owens 2019:62)

52. DiRado-Owens *La Creación de la Luna* (2019:62)

The example (22) shows the morpheme *-ñu* labeled as TAME. TAME stands for tense, aspect, modality, and evidentiality. The aspect in (22) is a past event. This is combined with the modality and the evidentiality, which is that the speaker of the story is recounting that this is something that they heard being said.

Following the prompt for ‘*creating your own examples*’ as outlined in *Unit 2.2.6* will help a learner identify morphemes that cover all three categories listed in this lesson: evidentiality, aspect, and modality. For this language, they are inseparable as they have logical implications on each other. Further reading and analysis can be done by reading DiRado-Owens’ 2020 thesis in the section *2.3.1 TAME morphemes*.

Unit 2.2.7: Sentence Types

Goal: The learner will be able to identify declarative, imperative, interrogative, and exhortative types of sentences.

Within sentence types, there are four different ways to form ideas to say statements, questions, or commands.

Declarative sentences are statements. This is the default sentence structure in Mütěã. For negation, Mütěã uses the suffix *-eti*.

(23) *kãwĩmĩ* *hĩkãũã a* *mãsi-ñã-mĩ* *atinẽmõ-rikkã-rõ* *mãñõ*
niño-3SG.M solito a aprender-?-3SG.M ayudar-NOM-3PL sin

“el niño ya aprendió a caminar solito sin ayuda de nadie”

Dictionary: “mãsiñike”- aprender

(24) *y#* *masi-eti-ya*

1SG saver-NEG-TAME

“Their eyes became red like having a fever.” (DiRado-Owens 2019:45)

69. DiRado-Owens *La Creación de la Luna* (2019:45)

For the two examples used above, the root word is associated with knowledge and closest to a minimal pair without getting a direct opposition of a direct and negative sentence.

Imperative sentences are usually commands, telling a listener to do a specific action. DiRado-Owens (2019) also describes both these and interrogative sentence types presenting the examples listed here in (25).

(25)	a.	<i>tia-ya</i>	b.	<i>rui-ya</i>	c.	<i>pebo-ya</i>
		venir-IMP		sentar-IMP		tajar-IMP
		“ven”		“sienta”		“taja”

66. DiRadio para marcadores negativos, pg. 44

Note that in all of these examples, the imperative is created by adding the suffix *-ya*.

Interrogative sentences are questions, which involve two different types. The first is polar questions, which are questions that can be answered using yes or no. Content questions are the second type, which are questions that ask for more information. Content questions usually involve content answering things like: who, what, when, where, why, or how.

For content questions, Mũtẽã uses content question words in combination with the question suffix *-yati/ati*. These two are used in separate context depending on whether the speaker may have seen the event to which they are questioning about. The suffix will attach to the verb and replace the evidential marker that is being used.

Interrogative Phrases

dope	what
ñe	when
nõkãrõ	when
nõhõ	how
nõpu	where
dopãinõ	why

(26) *ñãmãrã* *nã* *ãni-ñati?*

INT.3PL.qué 3PL estar-INT

“Who are they?” (DiRado-Owens 2019:34)

35b. DiRadio para marcadores interrogativos, pg. 34

Unit 2.2.8: Verb Serialization

Goal: The learner will be able to define verb serialization and be able to identify it within sentences.

Verb serialization is a way of arranging multiple verbs next to each other without using conjunctions. When using verb serialization, the subject of the sentence is the same, and the verbs are usually sequential. Occasionally, verb serialization may be referenced as verb stacking in other materials.

(27) *Nõã* *nã-anĩ-ñati* *mãrĩrẽbairõ* *kati-epe* *mãrĩ-rẽ*

INT 3PL-be-INT como:esto vivir-aprovechar 1PL.INCL-REF

kañẽ-epe-rã-ĩ

apderarse:de-aprovechar-3PL-?

“What could be the thing that is molesting us and taking advantage of us?” (DiRado-Owens 2019:55)

23. DiRado-Owens *La Creación de la Luna* (2019:55)

(28) *kõ-rẽ* *kañẽ-epe-i-tu-re* *baikõã*

3SG.F-REF 3SG.INAN-aprovechar-?-remain-REF como:esto:esta

usa-wākã-rã-su-pãrã

bañar-despertar-3PL.ANI-PST-3PL.ANI

“It could be it who kept taking advantage of her, so they went to wake up early and bathe.” (DiRado-Owens 2019:57)

32. DiRado-Owens *La Creación de la Luna* (2019:57)

(29) *kũkã* *mãsĩ-ro* *bai* *rũi-nũka-koa-to*

DEIC saber-STA como:esto descender-soportar-abandonar-INAN

“The power of thought descended him to leave and endure the underworld” (DiRado-Owens 2019:62)

51. DiRado-Owens *La Creación de la Luna* (2019:62)

Verb serialization becomes a singular word in Mũtẽã as shown in examples 27, 28, and 29. In all three of these examples, the last word is the verb that exhibits multiple verbs that a single subject is performing.

Creating your own examples:

To identify verb serialization and create more examples, imagine a scenario in which a person is performing two or more actions in a row. This could be like “the boy sat and ate”. Importantly, there is only one subject that is performing both actions. As you think of these actions, write your sentence and identify the root of the verbs in the verb serialization that takes place.

3.0 Technology and Resources

Throughout this thesis, examples from both DiRado-Owens (2019) paper and field research by Wilson Silva. In both cases, working with the language consultants required experience with technology and documentation. Without careful consideration from the Mũtẽã team, nothing in this paper would have been possible. This section highlights the efforts from the team and recounts the details of the documentation process.

3.1 Dictionary Creation

In creating the Mũtẽã dictionary, digitalizing our efforts is the quickest and easiest way to produce the dictionary as well as archive the data for future use. We are using a mixture of programs, however the primary ones are FLEX and Microsoft Excel.

Microsoft Excel is a spreadsheet and organization tool favored by our team. We work online using *Box* as an added security measure for the material. This easily allows us to use an online mixture of tools for both the organization and documentation of the materials. Excel allows us to type the dictionary entries using the special diacritics required in the Mũtẽã orthography with little to no difficulty. From there, Excel makes this data easily accessible by our team to share and discuss.

Additionally, *Box* has become a staple for secure and easy access to language materials. As will be mentioned later, data collection includes a variety of file types that need to be available to members of the research team no matter their location. *Box* supports documents, images, and videos while allowing the members to create notes for clear communication.

The last main program our team uses is FLEX. FLEX is a program developed by SIL (Summer Institute of Linguistics) with the concept of helping with the documentation of languages. SIL is a religious based effort, with Bible translation as the leading goal for their work. There are alternatives to FLEX, however archiving systems such as *LingView* rely on FLEX coded data files for compatibility. FLEX securely stores data online, where a code and password are required to edit the database. Teams working on the project have this, but it is not shared with anyone outside. FLEX not only applies a more formal aspect to the database, but also offers tools to help analyze the language, such as a morpheme tracking system. With this, texts and stories like *The Creation of the Moon* can be broken down faster to help us advance understanding.

3.2 Data Management

Within this project, large amounts of written and audio data had to be collected and stored. As linguists work in the field, the information they receive from the community needs to be well organized and easy to access. This section will outline the process of organization and explain where the data currently is at.

Largely, data collection and organization need to follow sets of guidelines for archiving. When data is archived, it becomes accessible to other linguists as well as the community. However, access to the data is limited through security defined by both the database and the community that the data is collected from.

3.2.1 Data Collection

During fieldwork, Dr. Silva collected a mixture of audio and written materials from the Mūtēã consultant group. As mentioned previously, the written materials include his fieldnotes as well as several hundred bilingual index cards of dictionary entries. For the dialogue captured, Dr. Silva used an audio recorder called “Zoom H4n Handy Recorder”. The written material is always kept securely with either Dr. Silva or myself, as it is my job to digitalize the content.

The process of digitalizing the dictionaries takes several steps to optimize the organization of the words. Initially, the cards were scanned individually to create singular PDF files. With each word having its own PDF file, our team could quickly locate the corresponding original data when discussing a dictionary entry. Additionally, a separate file was made where all the cards are alphabetically in order with several cards to a page. This assists the team when needing to look

through multiple word entries at a time. Both individual and group card PDFs were filed under the date that the data was written down. Then, these dictionary card entries were hand-typed into the Excel sheet. This prevents scanning error with consideration of the special characters included in the orthography. Additionally, when typing the entries to the dictionary, notes were made within Excel to indicate if there are any preliminary errors that should be brought back to the field team to discuss. These include things such as using the word being described in the definition, or the word missing from the example sentence. The Excel definitions can be brought over to the FLEX database easily, where the dictionary will eventually be produced from. When transferring the information into FLEX, our team checks for errors again and also compares updated entries.

Data was also collected using a communication app called *WhatsApp*. This app allows for secure and quick communication, in which videos as well as text can be traded back and forth.

WhatsApp works with any internet communication and can be accessed via computer or phone.

This also allows the ability to transfer files from each device as needed. Another primary reason for using *WhatsApp* with this community is because of the access to technology that they have.

Indigenous communities in the Vaupés region of Colombia do not have reliable power to charge electronics, and signal for Wi-Fi and telephones in Mitú, the largest town in the region, can be irregular. Since *WhatsApp* is versatile in both signal and technology, the communication app has been used frequently for all members of our team.

3.2.2 Data Storage

Keeping collected materials both secure and accessible by the required people is a high priority for our team. Protection of data when working with these communities is commonly a large concern, especially when working with communities that do not want to share their language with people outside. As previously mentioned, we use a few documentation databases such as FLEX and Microsoft Excel. However, that doesn't cover the entirety of fieldnotes and other files that are shared in order for a project like this to work.

Dr. Silva began a *Box* file folder for the Mütẽã team, which is accessible online through special permission and password. These locked files include everything, such as the previously mentioned dictionary card PDF files.

The Mütẽã team has the goal to publish this dictionary to an online database. As mentioned before, a reason to use FLEX is because of the compatibility with a website code called *LingView*. In a final step, this online access will assist the community with having complete unrestricted access to their dictionary. This effort in using this archiving system is specifically because *LingView* might be able to accommodate the highly multilingual needs of the dictionary. Ideally, we will be able to combine several of the Tukanoan languages into *LingView* so that looking at a definition can show several translations at once. In the previous section discussing the culture and area, the multilingual structure created out of the family groups could benefit from having a comparative online dictionary in addition to a bilingual physical dictionary that we are creating here. However, the publication of the bilingual dictionary is our priority before porting the information over to *LingView*.

4.0 Conclusion

The grammatical lessons presented in this paper are based on my current understanding of Mũtẽã, informed by work done by my peers before me and close communication with the Mũtẽã people. However, this work should be considered preliminary as there is still much research to be done on the language especially regarding its complex agglutinative syntactic structure. These outlined lessons should serve as a baseline in which gives language teachers more resources, with the end goal of assisting with language revitalization in the area.

Our project of working on the dictionary and creating these language lessons to assist the community are both far from being completed, although we do intend to continue as we are able. As of right now, more dictionary entries must be collected, organized, and fed through FLEX. Additionally, a greater collection of audio data would be preferred to correct and optimize the current data. Lastly, further regulation of the community-based orthography system would also assist in creating a more stable ground for language revitalization. Mũtẽã offers linguists a rich language composition that clearly justifies assisting the community with revitalization, however the preservation and continuation of Mũtẽã is the ongoing priority of our team.

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