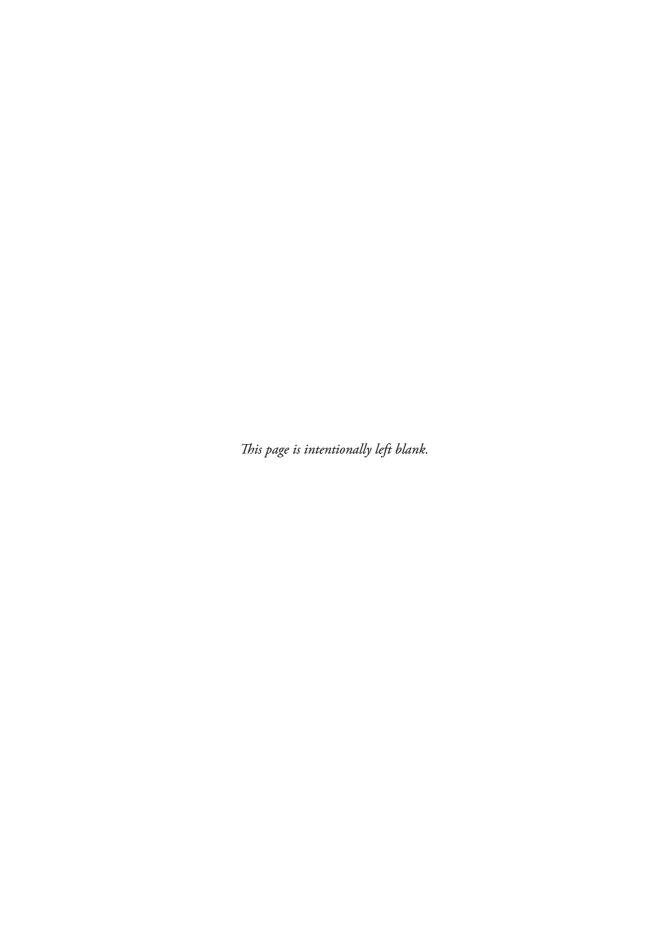
THE ARCHIVE

Vol. 4 Nos. 1-2 (2023)





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Jem R. Javier Editor-in-Chief

Department of Linguistics

College of Social Sciences and Philosophy University of the Philippines Diliman **The Archive** is the official journal of the Department of Linguistics, College of Social Sciences and Philosophy, University of the Philippines Diliman. The Regular Series of the journal serves as a peer-reviewed publication for original works dealing primarily but not exclusively with Philippine languages and dialects.

- full-length articles
- squibs
- linguistic data sets
- field notes and linguistic ethnographies
- interviews
- reviews and commentaries

Single, extensive works on the grammars of Philippine languages and dialects may also be published in the Special Publications Series of the journal. All submissions are subject to double-blind peer review with the exception of interviews, review articles, and commentaries.

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Gina Bernaldez-Araojo

Editor's Notes

As the history of an institution continually unfolds, we cannot ignore the importance of the archives, a collection of written, recorded, or preserved resources such as documents, audiovisual materials, or physical objects that have been deemed as having historical significance for the institution. In this volume of *The Archive* journal, we focus on how the archive—including its preservation, analysis, and interpretation—plays a crucial role in addressing particular topics, inquiries, or concerns pertaining to the study of languages as well as the production of knowledge in the Philippines. We showcase the results of archival research that utilize various methodologies; and, with the capabilities afforded by digitization, we shall see how the archives are given new life, understood, and reanalyzed in contemporary contexts.

This issue of *The Archive* features four articles that were produced by valuable data gathered through archival research: "The Tagalog Passive Voice in 17th to 19th-century Spanish Documentary Sources," by Arwin M. Vibar; "Cultivating Knowledge: T. H. Pardo de Tavera and Philippine Medicinal Flora," by Ma. Mercedes G. Planta; "A Grammar Sketch of Standard Thai based on Master's Theses and Doctoral Dissertations on the Thai Language under the Department of Linguistics, University of the Philippines Diliman," by Kritsana A.

Canilao; and "Legacy Language Materials in the Ernesto Constantino Collection: Challenges and Lessons for Building a Philippine Language Archive," by Elsie Marie T. Or and Dustin Matthew O. Estrellado.

Vibar's article takes us to the Spanish colonial period when the Spanish missionaries marveled at the complexity and distinctiveness of Tagalog (among other languages of the archipelago) as compared with Spanish and Latin, particularly on the voice system. Capitalizing on four seminal works, each of which represents a century of Spanish colonial activities in the Philippines, Vibar has systematically traced the early exposition of this aspect of Tagalog grammar and showcased the early generalization that any nominal can indeed be the focus in a sentence—an observation of the Tagalog passive, which, according to Vibar, "…may be regarded as groundbreaking and a precursor of the contemporary descriptions of this linguistics feature."

A product of the tribute lecture for the first chair of the University of the Philippines (UP) Department of Linguistics, Planta's paper reintroduces Trinidad H. Pardo de Tavera, the Philippines' foremost intellectual from the late 19th to the early 20th century and a key figure in the history of the country. It showcases Pardo de Tavera's important work, *Plantas medicinales de Filipinas* [Medicinal plants of the Philippines], published in 1892, and how it reflects the richness of precolonial health-care systems mirrored in the encyclopedic knowledge of our ancestors in terms of medicinal plants and healing practices. Although the focus of the article is on *Plantas*, Planta has also provided a profound account of Pardo de Tavera's academic life—unpacking, shedding light on, or recontextualizing complex issues surrounding him and his ideals that have otherwise been subject to contestations for the longest time.

In the 1970s until the 1990s, the UP Department of Linguistics accepted Thai graduate students who planned to undergo formal training in linguistics. In the paper authored by Canilao, she consolidated the results of the studies on Standard Thai based on master's theses and doctoral dissertations produced by Thai graduate students of the Department. These works not only contribute to the grammatical description of the national language of Thailand, but also highlights how their linguistic training under the Department—together with their exposure to the grammatical structures of Philippine languages as they pursued their graduate studies—has informed and provided nuance to analyzing typologically unrelated languages.

Last but not the least is Or and Estrellado's article presenting their work that they have so far accomplished in sorting through the legacy language materials in the collection of Ernesto Constantino, one of the prominent figures at the UP Department of Linguistics and in Philippine linguistic scholarship in general. Former University Professor Constantino's vast collection was a product of large-scale linguistic and ethnographic field work in various parts of the Philippines, which spans four decades, from the 1960s to the 1990s, and includes data of the country's understudied, threatened, and endangered languages. Along with a report of activities under this important project, Or and Estrellado outline the challenges that they face in archiving and digitizing the collection before they can be used secondarily by researchers and, equally important, repatriating the data to the ethnolinguistic groups from where these had previously been elicited.

Aside from the four articles mentioned above, in this issue of *The Archive*, we also feature the abstract of Gina Bernaldez-Araojo's dis-

sertation titled *Ang Morfosintaks ng Nawn Preys sa Biri-Waray*. She successfully defended and submitted her dissertation to UP during the Academic Year 2022–2023.

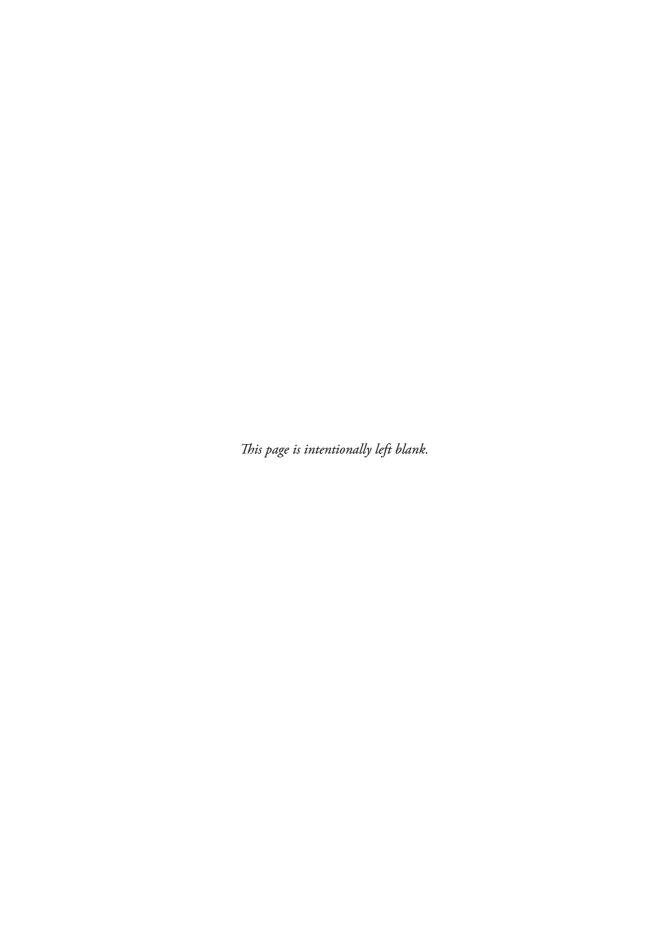
I am extremely thankful for the editorial team led by Divine Angeli Endriga, James Dominic Manrique, and Victoria Vidal. We are also grateful for the contributors who helped compile this collection of valuable essays that narrate the history of the journal's publisher, the UP Department of Linguistics.

The archive serves as an instrument for the institution's self-determination and self-regulation. Michel de Certeau (1998) has described the endeavor of engaging with the archive as a "labor of and against death," which Niamh Moore, Andrea Salter, Liz Stanley, and Maria Tamboukou (2017) have elaborated as representing "...a kind of machinery or technology for asserting life against death, giving voice to the past by fixing the meaning of what it inscribes" (p. 4). Linguistic data that the Department has archived, for instance, constitute not just the earlier forms of speech habits used by the ancestors but also the ethnolinguistic community's collective knowledge preserved and even have yet to be (re)discovered. The archive, then, may be considered an ageless keeper of the memory, experience, knowledge, and history, which are shared among its members. The usefulness of safekeeping the archive is all the more evident with the advent of the age of information and technological advancements. With this, we invite you to spend some time in the archives of your institution and, who knows, you might discover something worth doing research on?

Jem R. Javier Editor-in-Chief

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The Tagalog Passive Voice in 17th to 19th-century Spanish Documentary Sources

Arwin M. Vibar¹

Abstract

Since the 17th century, the voice system of Philippine languages has been an important point of inquiry for linguists, language scholars, and second language learners. The Spanish missionaries who learned, studied, and wrote pedagogical grammars of Tagalog had sensed the substantial contrast between Spanish (and Latin) and Tagalog, which they realized was even more pronounced in their voice systems. Effectively, Fray Francisco Blancas de San José (1610) reached the conclusion that the three passive verbal forms that he had identified and named after the voice marking affixes *y*-, *in*-, and *-an* lay as the bedrock of the basic clause structure in Tagalog. Confirmed by three

¹Arwin M. Vibar is an Associate Professor in the College of Arts and Sciences at the University of the Philippines Manila.

other missionaries representing each of the centuries of Spanish presence in the archipelago and elaborated upon with their contributions, Blancas de San José's analysis served as the foundation of the prevailing concept of the Tagalog voice system during the Spanish colonial period. But more than a task undertaken to typologize Tagalog, the comparison between these languages had been an important pedagogical strategy for learning the various languages of the people whom the missionaries sought to evangelize. This paper opens with an examination of how four Spanish missionaries described the Tagalog passive voice, explained the formation of passive verbs, and set the general rules for their use. Subsequently, the paper presents the grammarians' description of the syntactic structure of non-actor topic constructions in Tagalog, in which they showed that any nominal other than the actor can be the focus (el intento) in a sentence. Finally, it discusses the grouping of verb roots with similar meaning and the specific passive voice affixes these verbs can use. Considering the state of linguistics during the time these grammars were written, this analysis of the Tagalog passive may be regarded as groundbreaking and a precursor of the contemporary descriptions of this linguistic feature.

Keywords: missionary linguistics, Asian linguistics, Tagalog, Philippine voice system, passive voice

1 Introduction

Since the start of linguistic study and grammar writing in the archipelago, when the Spanish missionary-linguists arrived in the sixteenth century, the voice system of Philippine languages has always captivated the interest of language scholars. This is due to its great importance and its almost natural capacity to elude both adequate and comprehensive description. Specifically, the passive voice in Tagalog was adjudged as the substance and foundation of the language and that "the entire main structure of this language rests upon the three passives [such that] ... whoever is deficient and poorly grounded in this ... cannot possibly utter anything right or take full advantage of the other rules" (Blancas de San José, 1610, p. 46).² In addition, it was also observed that in Tagalog, it is more common to speak in the passive voice than in the active voice (Totanes, 1745/1850, p. 29; Coria, 1872, p. 157).³ The American linguists were equally fascinated as they studied the works of their Spanish predecessors agreeing that "[p]erhaps the most salient feature of these languages is the prevailing use of the passive construction"

²This and all subsequent translations from Spanish and Latin are by the author. The original text in full, with the translated parts in italics, is as follows: "Toda la machina principal desta lengua estriua sobre las tres pasivas que llamamos la vna de .y. y la otra de, in, y la otra de ,an, y assi el q esta bien puesto y fundado en ellas, realmente, es como señor desta lengua, y tiene la mayor y mas substancial parte della andada. Y el que en esto que es la substancia y fundamento estuuiesse corto y mal fundado, no es possible dezir cosa adrechas, ni aprouechar se biē de las de mas reglas: pues todas son como accidēte comparadas a esta materia por su gran importancia, y por mucha dependencia que todo lo de mas tiene desto."

³Two of the Spanish authors made a similar comment about the prevalence of the passive as already hinted in the earlier grammars: "En este idioma es mas frecuente el hablar por pasiva, que por activa" (Totanes, 1745/1850, p. 29); and "En el idioma tagalog es más frecuente el hablar por pasiva que por activa" (Coria, 1872, p. 157).

(Blake, 1906, p. 326). Such was the case that Bloomfield (1917) even said that "the active construction is *avoided* [emphasis added] whenever any object other than the actor is available as subject" (p. 154).

Even now, there is no indication that the mystique of the subject matter has diminished or started losing its attraction. In the introductory part of a paper on "this pervasive characteristic of the Austronesian languages of the Philippines," i.e., the goal or patient-topic construction, Shibatani (1988) refers to the voice system in Philippine languages as "one of the most controversial subjects in the current field of linguistic research" (p. 85). Even after this seminal paper, the search for the definitive word on the theme continues. New analyses have been coming out to contribute to an even better description that it "sometimes seems as if Austronesian specialists can talk (and write) of nothing else" except about "the voice systems of Philippine-type languages" which "are a notorious problem for both descriptive grammarians and theoretical syntacticians" (Kroeger, 2010, p. 207).

The purpose of this paper is not to unveil a novel or distinct analysis that has long been forgotten. Certainly it is not to resolve any doubts about the applicability of the notion of subject or on the correct analysis of the goal-topic or patient-topic construction. Its aim is simply to demonstrate how the first scholars who encountered this type of construction in Tagalog regarded and recorded this phenomenon in their grammars. Hence, we will delve into a general description of the Tagalog passive, encompassing its nature, function, and the general and specific rules on how it is formed and used. Here we shall see that, despite depending heavily on their formal knowledge of Spanish and Latin and the state of linguistics then, the grammarians could make

a fairly respectable analysis of the language, which could guide later linguists by serving as good starting points for further studying the features of the language. In collating their descriptions, we uncover the methodology they utilized in describing the structure of this construction in the language: they maximized the potential of the case system in noun phrases to demonstrate sentence structure. Thus, when the goal or recipient of the action denoted by the verb, which they referred to as lo que padece (that which suffers or receives [the action]), is to be given more importance, it is assigned the nominative case and the actor or *la persona que haze* (the person that acts [or performs the action]) is given the genitive. With their discovery of the language's facility to emphasize specific nominals in a sentence, they developed a notion of focus⁴ or what they called *el intento* (the target or intention) which they elaborated using noun cases and the corresponding type of passive (or verbal affix) depending on the meaning of the targeted object. It can also be deduced from the descriptions that the close association of the voice marking affixes and the intento may indicate an awareness that some relationship holds between them and the intento (Schachter & Otanes, 1972, p. 69). The semantic categorization of verbs that correspond to the different types of passive constructions strengthens this perception. Accordingly, certain verbs with similar denotational meaning behave similarly and take the same passive forms, i.e., these verb roots take on similar voice marking affixes or use these affixes in similar ways. As we

⁴Focus here is defined simply as an indicator of a relationship that exists between the verbal predicate, with its base and affix, and a constituent noun which the speaker has in mind. Schachter and Otanes (1972) refer to it as "the feature of a verbal predicate that determines the semantic relationship between a predicate verb and its topic" (p. 69).

are concerned only of the genesis or the possible beginning of modern analyses that would come later, we will not draw more conclusions than what is literally documented in the grammars.

2 General Description

In this part of the paper, we will explore the descriptions made by four scholars who published their respective Tagalog grammars during the three centuries of Spanish presence in the archipelago, specifically in the years 1610, 1679, 1745, and 1872 (see Javier & Or, 2022, for the Spanish period in Philippine Linguistics). The first of these was authored by Francisco Blancas de San José (1610) and was the first published grammar of the language. The subsequent ones were Agustín de la Magdalena's Arte de la Lengua Tagala Sacado de Diversas Artes (1679), Sebastián Totanes's Arte de la Lengua Tagala y Manual Tagalog para la Administración de los Santos Sacramentos (1745/1850), and Joaquín de Coria's Nueva Gramática Tagalog: Teorico-práctica (1872). Given the high regard Blancas de San José was given by other grammarians of the period (Vibar, 2021, pp. 5-6) and the enduring impact of his contributions, a substantial portion of this article is about his analysis. For the most part, the next scholars focused on systematizing the presentation of this author's original ideas, while introducing propitious refinements in the process, which we shall highlight at the opportune moments.

2.1 What the Passive Is

There is no attempt to formally or directly define the passive voice since it is already assumed to be a constitutive element of any language since

the time of the Stoics who distinguished between active, passive, and neutral verbs (Collart, 1954, as cited in Quilis, 1980, p. 36). Besides, at least in the first two centuries of Spanish presence in the islands, the grammars primarily served the needs of missionaries who needed to learn the languages to be used for evangelization. They were not treatises but pedagogical grammars that had been based on the learners' prior knowledge of Spanish and Latin, mostly acquired from the grammars authored by Antonio de Nebrija, who wrote the first grammar of the Spanish language in 1492 (Quilis, 1980) and a Latin grammar in 1481 (Nebrija, 1495). In his Latin grammar, Nebrija describes the passive verb in Latin simply as that which ends in *or*, preceded by the nominative of the person who undergoes the action and followed by the ablative of the person who performs the action, with the preposition a or ab, which can be changed into dative or accusative by using the preposition per (San Juan Bautista & Santa Maria Magdalena, 1827). 5 Since the Spanish grammarians were heavily influenced by Nebrija's grammars (Vibar, 2021, p. 2), one can expect a definition of the Tagalog passive which is closely fashioned after his definition.

Accordingly, the principal rule in passivization is that the object to which the verb refers and upon which the action is performed (goal) stands in the nominative, and the entity that carries out the action (actor) is indicated in the genitive.⁶ In the example below, the verb

⁵Here is the complete definition: "El verbo pasivo es el que acabando en or, tiene antes de sí Nominativo de persona que padece, y despues de si Ablativo de persona que hace, con preposicion a ó ab; el cual se puede mudar en Dativo ó en Acusativo con per" (San Juan Bautista & Santa Maria Magdalena, 1827).

^{6&}quot;La cosa que padece y acerca de quiē se ha de exercitar lo q el verbo dize, se pone en nominat. y la que haze en genit. ysulat ni Pedro yto: esto sea escrito de Pedro" (Blancas de San José, 1610, p. 47).

ysulat refers to and acts upon the pronominal *yto* (in the nominative case), and the actor, *Pedro*, takes the genitive case.

(1) Y-sulat ni Pedro yto
PAS-write.GOALFOC Pedro[GEN.ACT] this[NOM.GOAL]

'Esto sea [sic] escrito de Pedro.' [May Pedro write this.]⁷

In effect, verbs in the passive voice govern⁸ the case and assign the genitive to the person who performs the action (actor) and the nominative to the entity who undergoes the action (patient or goal) indicated by the verb root (Magdalena, 1679).⁹

This rule or definition is made on the basis of which element in the sentence assumes the nominative case and which element takes the genitive. Accordingly, that which receives the action (*lo que padece*), which is literally a patient, and to which that action indicated by the verb refers (*acerca de quiē se ha de exercitar lo q̃ el verbo dize*), i.e., a non-actor sentence constituent, is assigned the nominative case. On the other hand, the person (actor) who performs (*la que haze*) the action indicated by the verb takes the genitive case. The definition of the active voice is similarly formulated and can be abstracted from the following

⁷The Spanish texts are lifted verbatim from the original sources; the English-translated glosses in square brackets are the author's own. All the abbreviations referring to grammatical categories are standard except for the shortened form for PASSIVE which is PAS based on the Leipzig Glossing Rules. Since the passive voice is designated only as *y*-, *in*-, or *-an* passive and is recognizable in the text, the type of passive voice is not included in the glosses. Only the goal and the actor are indicated since the grammarians identified only these two semantic roles.

⁸The concept of government used here is that of traditional grammar where a verb is said to "govern," i.e., control or assign, the grammatical case of its complement.

⁹"En passiva [los verbos transitivos] rigen genivo [*sic*] de persona que haze, y nominativo de persona que padece ..." (Magdalena, 1679, folio 28).

text whose aim is to differentiate between the two types of active voice markers: "In verbs that express movement, the active form with *um* is used to denote the movement performed by the thing placed in the nominative case, so that it moves. But to express active movement which occurs in another thing, it will be done using *mag*." Briefly, whether the *-um-* or *mag-* form is used, it is the actor or the performer of the action that takes the nominative case in an active sentence.

An additional concept emerges to enrich this fundamental description of the passive voice, which can be inferred from the following statement: "... in the passive voice, what is primarily intended [emphasis added] should be done and placed in the nominative, and then apply the appropriate passive construction according to the given rules" (Totanes, 1745/1850, p. 33). We see the same idea repeated in a later grammar together with the use of the term *el intento* (Coria, 1872), 12 which literally means the objective or goal one sets for oneself, or simply "the target." Below are three sentences that show different targets but using

¹⁰ En verbos que dizen mouimiento, se dize por la activa de .vm. el mouimiento que en si exercita la cosa que se pone en nomin, de manera que el se mueve. Pero para dezir mouimiento activo q̃ passe en otra cosa, sera por Mag" (Blancas de San José, 1610, p. 31). For Schachter and Otanes (1972), -um- and mag- are affixes that form actor-focused verbs. Reminiscent of Blancas de San José's differentiation, Schachter and Otanes distinguish the two verbs in terms of the direction of the action or movement expressed by the verb. -Um- is often used "in verbs denoting casual action/or action not involving movement of an object external to the actor" (p. 292) while mag- is found oftentimes in verbs that connote "deliberate action and/or action involving movement of an object external to the actor" (p. 289).

¹¹ "Para el acertado uso de estas pasivas, reflexiónese en cada una oracion, que *por* pasiva deba hacerse lo que principalmente se intenta en ella y eso póngase en nominativo, y despues darle la pasiva, que le conveniere segun las reglas dadas" (Totanes, 1745/1850, p. 33).

^{12&}quot;... obsérvese el intento que uno se propone en la oracion siguiente: Busca el Libro con esta luz en la celda" (Coria, 1872, p. 177).

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the same verb root, each one with a specific passive affix (Totanes, 1745/1850, pp. 33–34; Coria, 1872, pp. 177–178). Note that in Spanish all three sentences mean, "Busca el Libro con esta luz en la celda" [Search for the book with this light in the room].

- (2) Ang libro, y, hanap-in the book[NOM.GOAL] PRED search for-PAS.GOALFOC mo nitong ilao sa silir you[GEN.ACT] this lamp[OBL] in the room[OBL] 'The book, search for it with this lamp in the room.'
- (3) Itong ilao, ay i-hanap this lamp[NOM.GOAL] PRED PAS.GOALFOC-search for mo nang Libro sa silir you[GEN.ACT] this book[OBL] in the room[OBL] 'This lamp, use it to search for the book in the room.'
- (4) Ang silir ay hanap-an the room[NOM.GOAL] PRED search for-PAS.GOALFOC mo nang Libro nitong ilao you[GEN.ACT] this book[OBL] this lamp[OBL] 'The room is where you are to search for the book with this lamp.'

Before leaving this topic, we cannot help but comment on the grammarians' use of ay (or its short form y) in Tagalog especially in focusing specific constituent nouns. Early on, there was already a clear consciousness that ay did not function as a verb. Blancas de San José (1610) knew that it was but "a tapping and grace placed in the middle of the sentence when the noun about whom something is said takes the first position"

(p. 15). When *ay* is dropped, the sentence is said in reverse, i.e., *Si Pedro*, *ay*, *matapang* becomes *Matapang si Pedro* [Pedro is brave], ¹³ or *Ang libro*, *y*, *hanapin mo nitong ilaw sa silir* becomes *Hanapin mo nitong ilaw ang libro sa silir* [The book, search for it with this lamp in the room].

At this stage, the phenomenon of sentence focus was already intuited. It was called "what-is-primarily-intended" or the *intento* (Totanes, 1745/1850, pp. 33–34; Coria, 1872, p. 177) which can be translated as target, goal, or focus. In other words, it was no longer simply called the thing or object that stands in the nominative. We shall get back to this topic when we discuss the structure of non-actor constructions.

To end this part of the article, we can make three preliminary observations which will be further substantiated in the subsequent sections. First, it is evident that in Tagalog sentences, the actor is frequently not the bearer of the nominative case, which is a device that gives prominence to the nominal, and quite often it is the goal that takes the nominative. Secondly, we also find a hint that the prominent nominal somehow influences the choice of voice-marking affixes (e.g., *yto* being the prominent nominal and goal of the action expressed by the verb, points to the use of the *in*-passive). Finally, the meaning of the verb also affects the type of passive (or the voice-marking affix) that the verb will assume. We shall discuss these observations more toward the last part of this paper as we discuss the structure of non-actor constructions and the semantic grouping of verbs.

¹³The complete quotation is as follows: "Podria offrecer se le a alguno que se suple có esta particula, ay, como diziedo, si Pedro, ay, matapang: pero no es assi, por q̃ esta particula, ay, no es sino vn sósonete y gracia q̃ ponẽ en medio quando precede el sujeto de quien dizẽ algo: y sino bueluan al reues aquella misma oració, si Pedro, ay matapang, diciendo, matapang si Pedro; la qual esta muy buena y perfecta, y vease donde esta el, ay, q̃ supla el sum es fui" (Blancas de San José, 1610, p. 15).

2.2 When to Use the Passive

Determining when to use the passive voice requires knowing how it is distinguished from the active voice. Previously we have seen that both the passive and active voices are defined in terms of cases, i.e., active verbs go with "nominative actors" and passive verbs are happy with non-actors that bear the nominative case. To this can be added that essentially, while the active voice is used when referring to an indefinite object (or "goal"), the passive voice is employed when discussing a definite object (or "goal"). Verily, the active sentence is used to speak of something that is general and indefinite. In Spanish, this manner of speaking is achieved by using sentences that omit the definite articles before nouns. Just the opposite, the passive is used when referring to something specific (*señalada*) and definite (*determinada*) (Blancas de San José, 1610, p. 74). The following are examples: 14

¹⁴ "Veniendo al vso de la active y passiva, la diferencia q̃ entre ellas en esta lengua se ha de notar muy notoda (sic.), y guardalla quanto fuere possible, es que la actiua se vse quando se habla alguna cosa en general cō modo no determinado: lo qual se conocera en ver que en nro Español no tiene aquel articulo el, la, lo. Pero la passiua se vse quando se habla de alguna cosa como señalada, y con modo determinado. Exemplo, para dezir trae agua; dezir por passiua, conin mo tubig, o, conin mo ang tubig, es disparate: sino moha ca nang tubig: por que aquella passiua conin mo ang tubig, haze sentido, trae la agua, la agua de que se entienden ellos señalada. Mata vn puerco, matay ca nãg babui. Empero para cosa señalada .v.g. mata el puerco, patayin mo ang babuy, o poner aquel yaon, o el tuyo, o lo que quisieren" (Blancas de San José, 1610, pp. 74–75). This explanation with its examples also appears in Magdalena (1679, folio 38), Totanes (1745/1850, p. 34), and Coria (1872, p. 178).

(5) Active
Moha

ca¹⁵
k<um.ACTFOC>uha [bring] you[NOM.ACT]

nang tubig

water[GEN.INDF.GOAL]

'Trae agua.' [Bring water.]
(6) Passive

Con-in

mo

PAS-kuha(n)-in.GOALFOC [bring] you[GEN.ACT]

ang tubig

the water[NOM.DEF.GOAL]

'Trae la agua.' [Bring the water.]
In other words, whenever a sentence uses a definitizer, e.g., ang

In other words, whenever a sentence uses a definitizer, e.g., *ang*, *yaong*, and *iyang*, the passive voice is used such as in the following examples (Totanes, 1745/1850, p. 34; also found in Coria, 1872, pp. 178–179).

(7) Pata-in mo
kill-PAS.GOALFOC you[GEN.ACT]
ang manùc (stem: patay)
the chicken[NOM.DEF.GOAL]
'Mata la gallina.' [Kill the chicken.]

¹⁵The first and second person singular personal pronouns of Tagalog are, respectively, *aco* (NOM), *aquin*/*co* (GEN), and *saaquin* [OBL]; and *ycao*/*ca* (NOM), *yyo* or *mo* (GEN), and *saiyo* (OBL) (Blancas de San José, 1610, pp. 8–10). The label OBL has been used to refer collectively to the ACC, DAT, and ABL.

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(8) Dalh-in mo
bring-PAS.GOALFOC you[GEN.ACT]
yaong tubig (stem: dala)
that water [NOM.DEF.GOAL]
'Trae aquella agua.' [Bring that water.]

(9) Houag mong pagsil-ín

NEG you[GEN.ACT] eat-PAS.GOALFOC

iyang lamancati (stem: sila)

that meat[NOM.DEF.GOAL]

'No comas esa carne.' [Do not eat that meat.]

This observation above is recorded in the early 20th century by American linguists who studied Tagalog.

In any given sentence the voice of the verb depends upon the relative importance of the various elements, the most important or most emphatic idea being made the subject of the sentence. If this is the agent of the action expressed by the verb, the active voice is used; if it is any other element of the sentence, then one of the three passives is employed. (Blake, 1916, p. 411)

And then,

In general the choice between these four constructions [active, direct passive, instrumental passive, and local passive] is made in accordance with the logical situation: the definite, known object underlying the predication as starting-point of discourse is chosen as subject. (Bloomfield, 1917, p. 154)

Whether these linguists borrowed these ideas from their predecessors or it is a conclusion born out by their independent study is irrelevant. What holds greater relevance to the objective of this paper is to demonstrate that these were ideated much earlier than the twentieth century and that the next linguists did not have to start from scratch.

2.3 Formation of Passive Verbs

Three types of passives were identified based on the verbal affix used, namely, the *y*-passive, *in*-passive, ¹⁶ and the *an*-passive (Blancas de San José, 1610, pp. 46–48). The following description appears in all the four grammars using the same rules applied in the same examples, with just minor modifications or additions.

The *y*-passive is used with verbs that denote *ad extra* actions of the actor (in the genitive case) toward the subject (in the nominative case) or simply those actions that are exteriorized. On the other hand, the *in*-passive is for verbs that denote *ad intra* operations toward the actor, i.e., those actions that do not end up being exteriorized (Blancas de San José, 1610, p. 50).¹⁷ For example:

(10) Yacyat mo aco nang bonga [sube me por fruta] [climb for a fruit for me]

¹⁶All four grammarians used the label *in*-passive (*la passiva [pasiva] de in*) but Blancas de San José (1610) would also use the label *yn*-passive (or *passiva de yn*). To avoid confusing the readers, this article uses *in* except for texts directly taken from Blancas de San José's 1610 *Arte*.

 $^{^{17}}$ "La differencia que se puede dar entre la passiva de .y. y la de ,yn, y señal para quando se ha de vsar de la vna y quádo de la otra, es que la passiva de .y. es para accion que dize como echar acia fuera, ad extra, cosa \tilde{q} va de la persona \tilde{q} haze y se pone en gen. a otra parte, \tilde{q} al fin es como despedir y echar acia fuera. Pero el in, dize atraher acia si o modo de atraher acia si" (Blancas de San José, 1610, p. 50).

(11) Acyatin mo ytong bonga... [sube por ella y trahela] [climb for a fruit and bring it]

To form the *y*-passive, the prefix *y*- is attached to the root.¹⁸ On the basis of tense and mood, four forms of the *y*-passive can be distinguished, i.e., an imperative mood, future tense, preterite tense, and the present tense. Accordingly, the root *sulat* has the following *y*-passive forms:

- Imperative: prefix + root, e.g., ysulat
- Future: use the imperative but reduplicate the first syllable of the root, e.g., *ysusulat*
- Preterite: use the imperative but place the syllable in between the first and second letters of the first syllable of the root, e.g., *ysinulat*
- Present: use the past form but reduplicate the first syllable of the root, e.g., *ysinusulat*

The second, i.e., the *in*-passive is formed by attaching the suffix -in at the end of the root.¹⁹ This type of passive does not have all the forms that the y-passive has but only the imperative and the future. (The preterite and present forms use -in- but not as suffix.) Thus,

- Imperative: *hanap > hanapin*
- Future: the first syllable is reduplicated, e.g., hahanapin

¹⁸The term "prefix" is not used but "letra antepuesta a la rayz de la palabra" (Blancas de San José, 1610, p. 47), or "particula" (Magdalena, 1679, folio 33; Totanes, 1745/1850, p. 29; Coria, 1872, p. 157). Magdalena also uses the description "se forma anteponiendo vna y" (1679, pp. 33–34). Similar expressions are used by Totanes (1745/1850) and Coria (1872).

¹⁹Instead of "suffix," Blancas de San José uses the description "... se forma con la rayz posponiendo le esta syllaba .yn." (1610, p. 48), while Magdalena uses "... se pone despues de la rayz" (1679, folio 33). Totanes (1745/1850) and Coria (1872) use the same expressions.

- Preterite: no -in at the end but placed between the first two letters, e.g., hanap > hinanap; tavag > tinavag
- Present: when the root starts with a vowel, *in* must be prefixed to form the present and the preterite forms in such a way that the *n* of *in* is attached to the vowel of the root, e.g., *ona* > *ynona* (past), *ynoona* (present), ...

Finally, the *an*-passive is formed by attaching the suffix *-an* to the root of the verb.

- Imperative: root + -an, e.g., sulatan
- Future: imperative but reduplicate the first syllable of the root, e.g., *susulatan*
- Preterite: imperative but add an in between the first two letters of the root, e.g., *sinusulatan*
- Present: future form but add -in-, e.g., sinusulatan

 Note: When the first syllable is a vowel, the same thing done with the in-passive is done, e.g., aral, ynaaralan, ynaaralan.

This description of how the verbs are formed according to the different particles (or affixes) and aspects also appears in Blake's *A Grammar* of the Tagalog Language (1925, pp. 40–42), a fact that attests to the correctness or validity of the early grammarians' interpretation of the passive construction.

2.4 General and Specific Rules on When to Use Each Passive Type

Rules of usage specific to each passive type complemented by examples of verb roots, grouped according to their meanings and the type or types of passive each group can assume, are found in Blancas de San José

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(1610, pp. 51–79) and in the three later grammars. We shall look into a few of these rules and the semantic grouping of verb roots to see how they are presented in the four grammars under study.

When the subject of a sentence, i.e., the noun that carries the nominative case, denotes a real or metaphorical instrument, or occasion/cause for doing something, the *y*-passive is used.²⁰ Likewise, the *y*-passive is used with verbs that mean to throw or to cast or move away from oneself.²¹

(12) Y-acyat mo aco
PAS-climb for.GOALFOC you[GEN.ACT] I[NOM.GOAL]
nang bonga (stem: akyat)
a fruit[OBL]

'Sube me por fruta.' [Climb for a fruit for me.] — where aco is the occasion

When the subject indicates place or anything like a place, one has to use the *an*-passive.²²

²⁰"... todas y quantas vezes se hablare de instrumento ora proprio ora metaphorico y consiguientemente de ocasion y causa de hazer se algo, hablando se de tal instrumento o ocasion y causa en nominatiuo: pide infaliblemente la passiua de .y." (Blancas de San José, 1610, p. 51).

²¹"... todo lo que es echar, ó como echar hácia fuera, ó apartar de sí ..." (Totanes, 1745/1850, p. 31; Coria, 1872, p. 169).

²²"Todo lo que es lugar o como lugar, poniendo se en nominatiuo, pide la passiua de ,an, aunq̃ no siempre cō las mismas particulas, sino segun q̃ la tal accion es de proposito hecha, o acaso, pocas o muchas vezes" (Blancas de San José, 1610, p. 51).

(13) Acyat-an mo yaon
climb for-PAS.GOALFOC you[GEN.ACT] that[NOM.GOAL]
nitong ytac
this bolo[OBL]
'Climb [the tree] to give that [person] this bolo.' — where yaon
is the destination

When the subject means the material from which something is made, the verb has to use the *in*-passive.²³

(14) Tapis-in mo
make a tapis-PAS.GOALFOC you[GEN.ACT]

ytong ising
this fabric[NOM.GOAL]

'Haz lo [ising] tapis.' [Turn it (this fabric) into a tapis.] —
where ising is the material

Examining these three rules, one notices that the noun that stands in the nominative case is considered as the determiner of the kind of passive the verb will assume, i.e., *aco* (the occasion), *yaon* (the place), and *ytong ising* (the material). Further, the decision to use the passive or the active voice is dependent on whether the noun, i.e., the object spoken about in a sentence, is definite or not, i.e., as determined by their case markers. In the examples that follow, however, there is a more dominant tendency to refer to the kind or morphological shape of verbs

²³"Otra regla ay vniversal y que jamas faltará para la passiua de .yn. y es que va por ella todo aquello de que se haze materia para hazer algo dello, o como materia: de tal manera que aquello que es la materia se ponga en nominatiuo y aquello que se haze della, se haga verbo que se conjugue por la dicha passiua de .yn" (Blancas de San José, 1610, p. 69).

used rather than the features and denotation of the nouns, e.g., *yacyat*, *acyatin*, *acyatan*, etc. Nevertheless, there remain a few references to the nouns that influence the "choice" of the passive form, e.g., the rule for using the *an*-passive. This shift of focus from nominals to verb roots, or rather the split of focus into two, will be patently clearer with the introduction of the Latin verses (see following) which were composed to aid the memory and comprehension of the specific rules on the part of the language learners.

Further, for the most part, the passivization rules that apply to a specific verb are presented as also applicable to verbs with related meanings (see Blancas de San José, 1610, pp. 51–68). To illustrate, the word acyat [sube] [climb] can use any of the three types of passive depending on which object is placed in the nominative case, e.g., yacyat mo aco nang bonga [sube me por fruta] [climb for a fruit for me]; acyatin mo ytong bonga [sube por ella y trahela] [climb for the fruit and bring it]; acyatan el arbol [climb the tree]. The same rules will apply to semantically related verbs like panaog [baxar] [climb down], abut [alcanzar] [reach], e.g., yabut mo yeri diyā [alcança esto dando le ay] [reach this, giving it there]; abutin mo yyan [alcançalo, remandalo y trayendolo hacia si] [reach, resend, and bring it toward oneself]; abutan la persona a quien se da algo alcançandolo como a lugar en quien para [reach the person to whom something is given as the destination of that something].

We shall return to these observations further when we consider the patient-topic construction in the second part of this essay as well as the semantic grouping of verbs in the third part. At this point, it may also be worth noting that attention to semantic content appears to be important in understanding how the Tagalog passives are deployed (Kess,

1979, p. 235). Meanwhile, we can go over the examples of verb roots with related meaning which assume the same type of passive (Blancas de San José, 1610, pp. 52–59). In the following lists of roots written in old Tagalog, the modern spelling is added right next to the root, followed by the glosses in Spanish (if given) and English (supplied by the author).

Tacbo [takbo] [correr] [to run] — The verb *tacbo* and other verbs that denote movement behave similarly.

ytacbo mo ytong canin sa maginoo

'lleva corriendo esta comida a &c.'

[run and bring this food/rice to the gentleman]

tacbohin mo ang canin doon sa maginoo

'q̃ vaya por la comida corriendo y la trayga del maginoo'

[run and take this food/rice from the gentleman]

tacbohan mo si covan nitōg canin

'es aquella persona o lugar aquien alguno lleua algo corriendo'

[run to him and give this food to Juan]

Similar words: *luvas* [luwas] [salir rio abaxo] [to go downstream], *pahir* [pahid] [limpiar] [smear/wipe], *coha* [kuha] [tomar] [take].

For the verb *coha* [kuha] [tomar] [take], the person who acts, i.e., the noun placed in the genitive case, brings toward himself an object, which is placed in the nominative case, e.g., *Aco ycoha mo nang tubig* [Trahe me agua] [Bring me water]. The following verbs behave similarly: *higit* [estirar] [stretch by pulling], *hango* [remove from the fire], *tabo* [scoop], *labnot* [pluck out by force], *docot* [dukot] [extract], *sipit* [clip], *dampot* [pick up], *lapnit* [tear by force], *pucnat* [tear off], *hila* [pull],

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binit [pull to tighten], sandoc [sandok] [scoop], yacap [yakap] [embrace], quimquim [kimkim] [keep], quipquip [kipkip] [carry under one's arm], tali [tie].

Gavar [gawad] [dar] [to give] — All verbs that mean 'to give' takes the *y*-passive which is used for verbs that signify 'to cast off,' and the thing that is given stands in the nominative case. Similar verbs: *bigay* [to give], *biyaya* [give], *handog* [offer], *hayin* [offer], *laan* [reserve for someone], *taā* [taan] [reserve for someone], *lagac* [lagak] [to put in a place], *saoli* [sauli] [return], *bili* [buy], *bayar* [bayad] [pay].

Coha [kuha] [tomar] [to bring] — The verb uses the *in*-passive, e.g., *coha* [kuha] [take] > *conin* [kunin] [take], and the thing that is taken by hunting or fishing takes the nominative case. Similar verbs: *agao* [agaw] [snatch], *daquep* [dakip] [catch], *dagit* [swoop down], *bilango* [bilanggo] [take as prisoner], *omit* [umit] [steal], *pili* [select], *halao* [halaw] [select], *silo* [snare], *bating* [catch an animal], *bintol* [use a net to catch crabs], *binvit* [bingwit] [catch a fish], *docot* [dukot] [draw out], *bili* [buy].

Tapon [throw away] — Verbs that denote *ad extra* actions take the *y*-passive and are impossible to have an *in*-passive form. Similar verbs: *vacsi* [waksi] [get rid of something], *taboy* [drive away], *tolac* [tulak] [push away], *bulir* [bulid] [fall off or down], *bunto* [bent out], *bolosoc* [bulusok] [fall down]; to throw upward or downward: *losong* [lusong] [descend], *loslos* [luslos] [break or burst], *panaog* [descend], *luvas* [luwas] [go downstream], *lavit* [lawit] [dangle], *singa* [singa] [expel mucus], *suca*

[suka] [vomit], lova [luwa] [belch out], tae [defecate], yhi [ihi] [urinate], holog [hulog] [drop], hapay [incline to one side], acyat [akyat] [bring something up], taas [itaas] [lift]; to scatter or spill: bohos [buhos] [pour], sabog [scatter], sambulat [burst], bulagsac [waste], saboy [scatter], salin [pour into another container]; verbs that denote movements that tend to remove something from where it was or any application of one thing to another: lapit [bring closer], layo [take farther], siping [lie down or place beside], tago [hide], tacbo [takbo] [run], tapat [put directly in front], harap [bring before something or something], solong [sulong] [push forward], hatir [hatid] [deliver], lapat [put two objects in contact], taob [put face down], latag [spread], larlar [ladlad] [spread], yoco [yuko] [bend], laylay [dangle], orong [urong] [to move back], ovi [uwi] [take home], tahe [tahi] [sew together], tagpi [patch], hinang [weld together].

Caen [kain] [comer] [to eat], *ynum* [beuer] [to drink] — Verbs that mean to eat or drink, which are both *ad intra* actions, use the *in*-passive. Similar verbs: *lamon* [eat], *sila* [eat], *ng̃oya* [nguya] [chew], *quilao* [kilaw] [eat raw], *cagat* [kagat] [bite], *ynum* [inom] [drink], *higop* [sip], *lagoc* [drink], *sipsip* [suck], *hothot* [huthot] [suck], *toca* [peck], *hithit* [inhale].

Hanap [buscar] [to search], *tavag* [tawag] [llamar] [to call forth] — Verbs that mean to search or summon go with the *in*-passive because they all mean to attract (*ad intra*). Similar verbs: *songco* [sungko] [recruit], *yaya* [invite], *yacag* [yakag] [invite], *polong* [pulong] [gather to meet], *habul* [habol] [run after], *songdo* [sundo] [fetch], *sisir* [sisid] [swoop], *tonton* [tunton] [retrace].

Potol [putol] [cortar] [to cut] — Verbs that signify something that is done with an instrument usually do not go with the *y*-passive when the thing affected is in the nominative case but by either *in*- or *an*-passive, i.e., *putlin mo yto* [putulin mo ito] [cut it] (showing what has to be cut), or *putlan mo yto nang munti* [putulan mo ito nang munti] [corta/quita le vn poco] [cut it a little]. When the verb refers to the instrument, it assumes the *y*-passive, i.e., *ypinotol* [ipinutol] [cut something with an instrument]. Similar verbs: *tagá* [hack with a cutting tool], *sibac* [sibak] [split with an ax], *biac* [biyak] [cleave], *tabac* [tabak] [cut down], *lagari* [saw], *lapa* [dissect], *quitil* [kitil] [nip], *bacbac* [detach], *gilit* [cut], *pogot* [pugot] [cut off/decapitate], *gapas* [cut or mow], *hiva* [hiwa] [slice], *gayat* [grate], *gūting* [gunting] [cut with a scissor], *punit* [tear], *catam* [katam] [smoothen with a plane], *palacol* [palakol] [ax], *ahit* [shave].

Other verb groups include:

- those that signify application or some mode of application to the body to mean carrying something, e.g., *dala* [carry], *sonong* [sunong] [carry on one's back], *pasan* [carry on one's back], *calong* [kalong] [to place on one's lap], *sapo* [catch with both hands], *quilic* [kilik] [carry against the hips], *bitbit* [carry/hold dangling], *calabit* [kalabit] [touch with one's finger tip];
- verbs that mean understanding or willing, e.g., *ysip* [isip] [think], *alaala* [remember], *talastas* [understand], *quilala* [kilala] [know], *lalang* [create], *ybig* [ibig] [like], *himanman* [understand], *panindim* [reflect], *pita* [desire], *sinta* [love], *giliu* [giliw] [love],

gonita [gunita] [remember], halata [perceive], osisa [usisa] [look into];

- verbs that indicate a specific way of looking, e.g., *tingala* [tingala] [look up], *lyngon* [lingon] [look back], *silip* [peep], *aninao* [aninaw] [see through], *panoor* [panood] [watch];
- verbs used for measuring, weighing, and cutting that constitute an act of understanding, e.g., *bilang* [count], *timbang* [weigh], *sucat* [sukat] [measure], *dangcal* [dangkal] [measure with the span from the tip of the thumb and of the middle finger], *balac* [balak] [plan], *dipa* [measure with the span of two extended arms], *salop* [measure with a ganta];
- verbs that mean "to tie," e.g., *gapus* [bind], *bigquis* [bigkis] [bind], *balot* [wrap], *ticlop* [tiklop] [fold], *ypit* [ipit] [clip], *tohog* [tuhog] [string together], *capit* [kapit] [hold on to something/grasp]; and
- verbs that denote the destruction of something, e.g., *sira* [destroy], *patay* [kill], *colam* [kulam] [hex], *gayoma* [gayuma] [charm], *tastas* [unstitch], *lason* [poison], *camandag* [kamandag] [poison], *sacal* [sakal] [choke].

To facilitate their internalization, these rules were made clearer and expressed in Latin verses that served as a mnemonic device for the missionaries (Magdalena, 1679, folios 35–37).²⁴ These verses were so

²⁴These Latin verses, which first appeared in Magdalena's grammar, do not only appear in the Tagalog grammars of Totanes (1745/1850, pp. 31–33) and Coria (1872, pp. 171–176) but also was adapted in the Hiligaynon grammars of Méntrida (1894, pp. 68, 77, 80) and Cuartero (1890, pp. 51–52), and Bermejo's Cebuano grammar (1895, pp. 78, 80–83). It is highly possible that Magdalena composed them as both Totanes and Coria mentioned his name in their respective grammars with Coria saying, "uno de los religiosos franciscanos más instruidos en este idioma, llamado el P. Magdalena, imprimio en su compendioso *Arte tagalog* unos versos latinos, que conser-

useful that they are found in all the Tagalog grammars included in this study and have been adapted in many grammars of other Philippine languages as well. A free translation in English follows the Latin verses.

The in- passive

Verba motum aliquem in subjecto faciendi.

Escam quamcumque, potumque sumendi.

Aliquem vocandi, aliquidque petendi.

Onus portandi, aliquidque quærendi.

Verba destruendi, modoque particulari aspiciendi,

In passivum petunt, quibus secandi iunges.

Omnia quæcumque ad se atraxerit homo.

Sit alliciendo, emendo, sitque venando.

Actaque etiam ex tribus potentiis orta.

Materia vel quasi ex qua rex (sic) aliqua fit;

Quod suum facit homo quod id tale habet.

Vultque fieri, & haberi

Gaudent in passivo cum metiendi verbi.

[Verbs that make some movement in the subject and indicate taking of food and drink; Verbs used for calling someone or asking for something, and for carrying a load and requesting something. Verbs that mean to destroy and to look at something in a particular way;

vados en la memoria facilitan su uso y comprehension" [one of the most knowledgeable Franciscan religious in this language, called Fr. Magdalena, printed some Latin verses in his concise Tagalog grammar, which when committed to memory, facilitate their (i.e., the passive types') use and comprehension] (Coria, 1872, pp. 170–171).

the *in*-passive is needed for verbs that mean to cut, etc. Verbs that mean carrying something toward someone by removing, getting, or hunting it, and the outward acts rising from the potencies (i.e., internal senses).

Verbs to refer to the material or anything similar from which something is made,

to indicate what man does by himself, what he actually has,

or he would rather do and have,

and verbs to indicate weight, measure, count, etc. are happy with the *in*-passive.]

The y- passive

Verba loquendi declarandi atque docendi, Comparandi verba dandi, atque vendendi. Et quocumque modo rem extra mittendi. Tempusque & causa instrumentum & quasi. Y passivum petunt, sempre que anteponitur illis.

[Verbs used for speaking, declaring, and teaching; (verbs) of narration, imitation, and also of reference; verbs to mean accommodating, giving, and selling, and whichever manner of sending out something.

Time, cause, instrument, and the like.

They require the *y*-passive which is always placed before verbs.]

The -an passive

Persona cui datur ex quaque tollitur aliquid. Ad idque quo verba gaudentia y passivo tendunt. Sit nunc persona, sit nunc res, cum loci teneat rationem. Semper petunt *an*, extrémoque addere puta.

[The person to whom something is given or from whom something is taken, or to that where the happy verbs tend toward in an *y*-passive or the place where something comes from or sent to, always require *-an* to be added at the end.]

The Tagalog verbs, grouped according to their meanings in Blancas de San José (1610, pp. 51–68) as already seen above, are used to illustrate the rules expressed in these Latin verses. The key difference is that the verbs are listed systematically: the verbs that take the *in*-passive are even enumerated using ordinal numbers. While the verbs that take the *y*-passive and *an*-passive are not numbered, they are presented in an orderly way, using signalling devices like "y" [and], "tambien" [also], or "y tambien" [and also]. For example, in Table 1 are the verbs that use the *in*-passive, which is used for all verbs that denote to attract or draw near oneself or *atraer* ò *como atraer azia si* (Magdalena, 1679, folio 35), and therefore all the verbs that mean to take something, which is placed in the nominative case.

Table 1. Meanings of the Verb Group in in-passive²⁵

	Meaning of the Verb	Example
	Group in <i>in</i> -passive	
1 st	to take, to reach for something	coha [tomar] [take], e.g., conin mo ang libro [take the book]; abut [alcançar]
	C	[reach for x], e.g., abutin mo iyan [reach
- nd		for that object]
2^{nd}	to ask	hingi [pedir] [to ask], e.g., hingin mo an
		balangna [pide una cosa] [ask for the
,		cooking pot]
$3^{\rm rd}$	to take something and	aquinin co [tomo lo para mi] [take it as
	make it one's own	mine]
$4^{ m th}$	movement	quiboin, e.g., houag mong quiboin [no lo
		menees] [don't shake something or
		someone]
5 th	to eat and drink	canin mo yian [comete esso] [eat that]
6 th	to search and call forth	caonin mo si Pedro [llama a Pedro] [call
		Pedro]
7 th	something which is done	potol [cortar] [cut], e.g., potlin/potolin
	with an instrument, not	mo yian [corta ello] [cut it]; tabasin mo
	placing the instrument in	nang panabas [cortalo cō las tixeras]
	the nominative case,	[cut it with a trimmer]
	which is for the <i>y</i> -passive	
8 th	any mode of application	dala [llevar] [carry], e.g., dalhin/dalahin
	to the body	mo [llevalo] [take it]
9 th	acts of one's faculties	talastasin [entiēdelo] [understand]
10^{th}	to look in some particular	lingonin mo yian [mira esso de passo]
	way	[look back at it]

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	Meaning of the Verb Group in <i>in</i> -passive	Example
11 th	destruction or something that leads to it	sirain mo [destruyelo] [destroy it]
12 th	· ·	tapisin mo yian ysin [haz saya de essa pieza de isin] [make an apron out of that piece of tapestry]

In Table 2 are the verbs that take the *y*-passive, which is used for all verbs that signify to throw out or away or *echar azia fuera* (Magdalena, 1679, folio 36). The object that is thrown away is placed in the nominative case. For easy reading and reference, the numbers on the first column are supplied.

Table 2. Meanings of the Verb Group in y-passive

	Meaning of the Verb Group in <i>y</i> -passive	Example
1 2	to throw [to use] any instrument whether properly or metaphorically speaking to do something	itapon mo yian [arroja esto] [throw it away] itong sondang yputol mo nyian cahui [corta con este cuchillo esse madero] [use this knife to cut that piece of wood]

²⁵The Spanish translations, some of which are inexact, are lifted from the grammars while the English translations are the author's.

Tagalog Passive Voice in Spanish Documentary Sources

	Meaning of the Verb Group in <i>y</i> -passive	Example
3	[to make someone or something] the occasion or cause for what the verb means	icao ang ipinahampas nang Padre saaquin [por tu causa me açotò el Padre] [you are the reason why the Priest had me beaten]
4	to spill, to pour	ibobo mo yian tubig [derrama essa agua] [pour that water]
5	to move outward and apply one thing onto another	itali mo dyian [atalo aì] [tie it there]
6	to apply something to fire	ysaing mo [guisalo] [steam it]
7	to metaphorically apply	ymucha mo dito yian gauamo [asimila â
	something either by	esto esso que hazes] [make what you are
	likening or speaking and	doing like this]; ibabala sa Padre [dilo al
	to imitate or make similar	Padre] [warn the Priest about it]
8	to throw up [from one's	ysucamo yian alac [vomita esse vino]
	mouth]	[vomit that wine]; yluva mo yian sa bibig
		mo [aroha esso que tienes en la boca] [spit
		that out of your mouth]
9	to speak of a specific time	arao na ipinagpanhic co niong sulat [dia en
	when an event happened,	que subì aquel libro] [the day when I
	happens, or will happen	carried that letter upstairs]

Finally, we are given a few examples of verbs that take the *an*-passive: bigyan mo aco nang tubig [dame agua] [give me water], abutan mo si Pedro nang soliyao [alcança (dando) a Pedro vna escudilla] [reach for Pedro, giving him a bowl]. The an-passive is used for all verbs that refer to a place or anything that functions as a place and all the verbs that

mean to give, call, count, trim, etc. The person to whom something is given or from whom something is received takes the nominative case because they function as a place.

The later versions of the specific rules are even more clearly presented. The language learner will notice that more specific examples are interspersed through the verses (see Totanes, 1745/1850, pp. 31–33) and the verses are numbered using ordinal numbers (see Coria, 1872, pp. 171–176). The difference between them is not substantive (see also Saracho Villalobos, 2018, p. 203) since it consists merely of variances such as typographical errors and/or change of conjugation of the same verb, e.g., otraxerit vs. atraherit, vultque vs. vulque, cun vs. cum, atiam vs. etiam; change of verb, e.g., emendo vs. comendo; omission of a verse that is found in the original, e.g., the line Ad idque quo verba gaudentia y passivo tendunt has been left out in the new versions. In any case, most of what has been said in the 1610 grammar subsists in these versions. Table 3 is Coria's adaptation in table format.

3 Structure of Non-actor Constructions

Having seen how the early grammarians explained the nature, use, and formation of the three passives, we can now consider the structure of sentences where these passive verbs appear. We shall also see their other conclusions that were eventually carried over into the more recent analysis of the passive voice such as those about complements, i.e., nominals with a non-focus relation with verb (Schachter & Otanes, 1972, p. 71) and sentence focus.

Table 3. Latin Verses in Coria's Grammar

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	Latin Verse	Author's Free Translation	Coria's Explication	Example	
	in-passive				
1^{st}	Verba motum	Verbs that make	Verbs of movement	Quiboin mo [Menéalo] [Shake it];	
	aliquem in	some movement in		Habulin mo [Alcánzalo] [Run after it]	
	subjecto faciendi.	the subject			
2^{nd}	Escam	that indicate	that mean to eat	Canin mo itó [Cómete esto] [Eat	
	quamcumque,	taking of food and	and drink	this]; Inumin mo itong alàc [Bébete	
	potumque	drink		este vino] [Drink this wine]	
	sumendi.				
$3^{\rm rd}$	Aliquem vocandi,	that are used for	to mean search	Hanapin mo si Luis [Busca á Luis]	
	aliquidque	calling someone or	for, call,	[Look for Luis]; Tauagin mo si Luis	
	quærendi.	asking for		[Llama á Luis] [Call Luis]	
	-	something			
4^{th}	Onus portandi,	for use for	to lift and carry	Dalihin [sic] mo itong bata [Lleva este	
	aliquidque petendi.	carrying a burden,	in any manner	muchacho] [Bring this child];	
		and requesting	•	Passanin [sic] mo itó [Lleva á	
		something		hombros esto] [Carry it on your back]	

	Latin Verse	Author's Free Translation	Coria's Explication	Example
5 th	Verba destruendi, modoque particulari aspiciendi.	Verbs that mean to destroy, and to look at something in a particular way	to destroy, kill, cut, uproot	Patayin mo ang aso [Mata al Perro] [Kill the dog]; Sirain mo iyan [Deshace eso] [Destroy that]
6 th	In passivum petunt, quibus secandi junges.	For verbs that mean to cut, etc., the <i>in</i> -passive is needed	to cut, etc.	Potlin mo yaon [Corta aquello] [Cut that]; Tastasin itong tinahi mo [Descose lo que cosistes] [Unravel what you have sewn]
7 th	Omnia quæcumque ad se atraherit homo. Sit alliciendo, comendo, sitque venando.	that mean carrying something toward a person by removing, getting, or hunting it	to bring toward oneself	Conin mo ito [Toma esto] [Take this]; Bilhin mo itong lupa [Compra esta tierra] [Buy this piece of land]

	Latin Verse	Author's Free Translation	Coria's Explication	Example
8 th	Actaque extribus potentiis orta.	that denote outward acts arising from the potencies (i.e., internal senses)	that refer to acts of the three potencies	Isipin mo [Piénsalo] [Think about it]; Ibiguin mo ang Dios [Ama á Dios] [Love God]
9 th	Materia vel quasi ex qua res aliqua fit;	that refer to material or anything similar from which something is made		Binaro co yaong cayo [Hice camisa de aquella manta] [I made a shirt out of that clothing material]; Babahayin co itong calap [He de hacer casa de esta madera] [I will make a house from this log]
10 th	Quod suum facit homo, id tale habet, vulque fieri, et habere	to indicate what man does by himself, what he actually has, or he would rather do and have	to take, make, or have something for oneself	Aquinin do [sic] itong baro [I will take this shirt as mine]; Iyohin mo iyán [Haz tuyo eso] [Make that yours]

	Latin Verse	Author's Free Translation	Coria's Explication	Example
11 th	Gaudent in passivo cum metiendi verbis.	verbs to indicate weight, measure, counting, etc all of these verbs use the in-passive.	to weigh, measure, count	Sucatin mo itó [Mide esto] [Measure it]; Dangcalin mo [Mídelo á palmos] [Measure it with the span from the tip of the thumb and of the middle finger]

	Latin Verse	Author's Free Translation	Coria's Explication	Example
	i-passive			
1 st	Verba loquendi, similandi, atque docendi. Narrandi, imitandi, atque etiam referendi Commodandi, dandi, atque vendendi. Et quocumque modo rem extra mitendi.	Verbs for speaking, imitating, and teaching, narrating, imitating, and referring, accommodating, giving and selling, and any manner of sending something out	Verbs that mean to throw, or something similar, outward either for real or metaphorically, placing it [the thing thrown] in the nominative.	Itular mo itó doon [Asimila esto á aquello] [Make it similar to that]; Iaral mo sa manga anac mo ang dasal [Enseña á tus hijos la doctrina] [Teach your children about praying]

	Latin Verse	Author's Free Translation	Coria's Explication	Example
2 nd	Tempusque et causa, instrumentum, et quasi. <i>I</i> passivum petunt, semperque anteponitur illis.	Time, cause, instrument, and the like require the <i>i</i> -passive, which [i.e., the affix <i>i</i> -] is always placed before them	Use the <i>y</i> -passive when verbs refer to a specific time, cause, reason for which an action is done or not, instrument which are placed in the nominative case	Ang arao na ipinañgana [sic] sa ating P. Jesucristo [El nacimiento de Nuestro Señor Jesucristo] [the day our Lord Jesus Christ was born]; Ang ating P. Dios lamang ang dico ipinatay sa iyo [Por Dios solamente no te mate] [Our Lord Jesus Christ is the only reason why I didn't kill you]; Iyan palacól ay ipotól mo nitó [Corta eso con esa hacha] [That ax, use it to cut this]

Latin Verse	Author's Free Translation	Coria's Explication	Example
an-passive			
Persona cui datur, ex quaque tollitur aliquid. Sit nunc res, sit nunc persona Cun loci teneant rationem. Semper petunt <i>an</i> , extremoque addere puta.	The person to whom something is given or from whom something is taken away, be it a thing or a person, or the place where something comes from or sent to, always require an -an to be added at the end.	Use the -an passive when verbs refer to a place and the like where something is placed, removed, done, or undone, comes from or ends up in, be that place be a person or thing which is placed in the nominative case.	Big-yan mo acó nang tubig [Dame agua] [Give me water]; Labanan mo ang masasamang pita nang cata-oan [Resiste á los malos apetitos de tu cuerpo] [Fight the bad desires of the body]

The basic structure of a passive sentence as seen above is that the object to which the verb refers and upon which the action is performed (goal) stands in the nominative and the entity that carries out the action (actor) is indicated in the genitive. We reproduce (1) given earlier to serve as an illustration.

(1) Y-sulat ni Pedro yto
PAS-write.GOALFOC Pedro[GEN.ACT] this[NOM.GOAL]

'Esto sea [sic] escrito de Pedro.' [May Pedro write this.]

The rule, it seems, is that the noun given the strongest emphasis gets the nominative case or is the subject of the sentence. In the given example, the pronoun *yto* is in the nominative case, i.e., the subject of the sentence and therefore what is emphasized. Following the rule governing the *in*-passive, the object of an action (i.e., *yto*) away from the actor, i.e., *Pedro*, is the subject of the sentence. This inference can be seen as well in Blake (1916), stating that, "The voice of the verbs depends on the relative importance of the various elements, the most important or most emphatic idea being made the subject of the sentence" (p. 411). Accordingly, the active voice is used if the emphasized nominal is the agent of the action denoted by the verb. When other nominals are used, the verb takes on any of the three passives. Similarly, Bloomfield (1917) affirms that the "definite and known object underlying the predication as starting point of discourse is chosen as subject" (p. 154) and when the subject is not the actor, the active voice is effectively avoided.

Another early description of a passive sentence is that it is used when speaking of something definite and pinned down or clearly indicated, as opposed to an active sentence which is used when talking about something in general and in an indefinite way, which in Spanish is

recognizable by the absence of the articles *el*, *la*, *lo* [the] (Blancas de San José, 1610, p. 74). In other words, there is reference to a case marker, in particular *ang*, as we see in the following paragraph that explains an exception to the rule on using the marker *ang* in certain cases of the passive sentence.

... when something is spoken about in a general sense, let us say *in genere*, a certain type of thing is referred to, but in an indefinite (*indeterminado*) manner *in specie* when speaking about it in particular. In this case, when one speaks of it and realizes that a specific thing is spoken about, the passive is used because it refers to some type of definite thing. However, by its lack of definiteness in species or in particularity, *ang* is not added. This will be understood in practice. What do you need to bring from there? Palay. Anong coconin mo doon? Palay, not ang palay but palay [What will you take from there? Palay, not the palay but palay]. What I need to buy is fish: ang bibilhin ko, ay, ysda. Not ang isda, el pescado: but ang bibilhin co. y. isda [What I will buy is fish. Not ang isda, the fish: but what I will buy is fish].²⁶

²⁶"... quando se habla de algo determinado digamos in genere, tal genero de cosa, pero indeterminado in specie en particular, entonces quando se habla dello y si se repara en que de aquello se trata, se habla por passiva, porque se habla de algun genero de cosa determinado: pero por la indeterminación que en especie o en particular tiene, no se le pone, ang. En practica se entendera. Que has de traher de alla? arroz. Anong coconin mo doon? palay, no ang palay sino palay. Lo que tengo que comprar es pescado: ang bibilhin ko, ay, ysda. No ang isda, el pescado: sino ang bibilhin co. y. isda" (Blancas de San José, 1610, p. 76).

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A clearer reference to these markers can be seen in the following rule from Totanes (1745/1850, p. 34):

It is accurate to use the active voice when one speaks of something indeterminate, which can be recognized by the absence of some of these articles *los*, *las*, *le de los*, *de las*, etc., or their derivatives *meus*, *tuus*, *vester*, etc., or some demonstrative [pronouns] such as *este*, *esse*, *de aquel*, *aquello*, etc., which are the [definite] determiners. On the contrary, it is necessary to use the passive voice whenever the sentence carries any of those determiners.²⁷

The case markers for singular nouns are listed in Table 4 (Blancas de San José, 1610, p. 7).

Table 4. Case Markers for Singular Nouns

NOM GEN DAT	si Pedro ni Pedro cay Pedro	Pedro de Pedro para Pedro	Peter of Peter to Peter	ang tavo nang tavo sa tavo	el höbre del höbre para el höbre	the man of the man to the man
ACC VOC ABL	cay Pedro ay Pedro cay Pedro	a Pedro ay, o Pedro de Pedro	Peter Peter in/with Peter	nang/sa tavo ay tavo sa tavo	al höbre ola höbre del höbre	the man man in/with the man

The forms of the noun whether proper or common are unchangeable, but to change the cases of proper nouns, some particles are used, i.e., *si*,

²⁷"... Es precision el hablar por activa, siempre que se habla de cosa indeterminada; lo que se conocerá en no llevar alguno de los árticulos, los, las, le, de los, de las, etc. ni derivativo, meus, tuus, vester, etc. ni demostrativo alguno como este, ese, de aquel, aquello, etc. que son los determinantes. [...] Por lo opuesto, precisa hablar por pasiva, siempre que llevase la oracion alguno de aquellos determinantes de la cosa" (Totanes, 1745/1850, p. 34).

ni, and *cay* for singular nouns. *Si* is used for nominative, *ni* for genitive, and *cay* for dative, accusative, and ablative. The plural particles are *sina* for nominative, *nina* for genitive, and *cana* for dative, accusative, and ablative (Magdalena, 1679, folio 1).²⁸

That the categorization of a sentence as passive depends only on the change that affects the actor-subject does not mean that the analysis stops here (Hidalgo, 1970). In fact, there is an awareness that a sentence that uses a transitive verb may have other nominals, other than the actor and the goal, in the "accusative" case (Magdalena, 1679, folio 28). In the sentence below, for example, there is an additional noun, *nang tubig*, that is neither in the genitive nor the nominative case, but rather than tagging it as an accusative, it is marked as "oblique," as Blake (1916, p. 412) does, stating the three cases as the nominative, genitive, and oblique. The same cases are used by Shibatani (1988, p. 86).

(15) Bigyan mo aco
give-pas.goalfoc you[gen.act] I[nom.goal]²⁹
nang tubig
some water[obl]
'Dame agua.' [Give me water.]

Here we see a recognition that the other nominals in the same sentence can have different roles or functions as also pointed out in more

²⁸"Los nombres en esta lengua son invariables, como tábien los Verbos, assi proprios, como apellativos, y para variar los casos se les aplican vnas particulas, que en los proprios, y de sobrenombres (que siguē la regla de los proprios) son *si*, *ni* y *cay* en singular, *si* sirve para Nominativo, *ni* para genitive, y *cay* para Dativo, Accusativo, y Ablativo…" (Magdalena, 1679, folio 1).

²⁹Based on the grammars, the pronoun *aco* in this sentence is a quasi-location or place.

recent studies (Schachter & Otanes, 1972, pp. 69–73; Ridruejo, 2007, p. 235). At this point, however, the grammarians are limited to naming these nominals as "actor" (*la persona que haze*) and "patient" (*la persona que padece*). At the same time though, it is acknowledged that the patient (goal) can have other functions as place or quasi-place (location, direction), instrument, recipient, etc., since these terms have been used to explain the rules that govern the three types of passives as well as in the semantic grouping of verbs based on the type of passive each one can take. This opens the way for a later proposal that there are more passive types than the number of voice affixes, as we shall see in the following section. Bloomfield (1917, pp. 153–154) renamed the three types of passive direct, instrumental, and local. Additional types will be named in later works.

As is observable, the nominative case gives prominence to a nominal. Thus, the emphasis of the sentence is clearly identifiable. The words *intento* (target, intention) and *connato* (effort especially to attain a particular goal) are used to refer to what the passive voice is able to achieve. We see this in Totanes's (1745/1850) explanation of how concretely the passive is used in real life. This very same explanation is reaffirmed more than a hundred years later (Coria, 1872, pp. 177–178).

For the exact use of these passive forms, keep in mind in every sentence that you must use the passive in expressing the thing that is intended or aimed at, and you must put that object in the nominative case. Then give it the appropriate passive affix according to the given rules. For example, in this sentence *busca el libro con esta luz en la celda* [look for the book with this light in the room], I can have one of

three intentions. The first can be the book that I'm trying to find without making an effort to look for it with this or another lamp, or in the room or another place. In this case, I will automatically put the book in the nominative and I will use the *in*-passive, based on the rule *Aliquid quarendi*, and I will say: ang libro, y, hanapin mo nitong ilao sa silir [the book, look for it with this light in the room]. The second intention can be that it be searched with this lamp, and not with another, placing the main effort on it, and thus I will place the lamp in the nominative case and give it the *i*-passive following the rule *Instrumentum*, & quasi, saying: itong ilao, ay ihanap mo nang libro sa silir [this lamp, use it to find a book in the room]. The third [intention] can be that it be looked for in the room, and not in another part (of the house), without any special emphasis on the book, or in the lamp. In this case, I will put the room in the nominative case, and I will give it the an-passive in accordance with the rule Sit nunc res, Sit nunc persona cum loci teneat rationem, saying ang silir ay hanápan mo nang libro nitong ilao [the room, look for the book there with this lamp].³⁰

³⁰ "Para el acertado uso del estas pasivas reflexiónase en cada una oracion, que por pasiva deba hacerse lo que principalmente se intenta en ella y eso póngase en nominativo, y despues darle la pasiva, que le conviniere segun las reglas dadas. Vg. En esta oracion; busca el libro con esta luz en la celda, puedo tener uno de tres intentos. El primero, puede ser el libro, que pretendo hallar, sin poner connato en que se busque con esta ó con otra luz ni en la celda, ni en otra parte: en este caso pondré inmediatamente al libro en nominativo, y le daré pasiva de in, por la regla: Aliquid quaerendi, y dire: ang libro, y, hanapin mo nitong ilao sa silir. El segundo intento puede

The early grammarians could sense the phenomenon of topicalization or the concept of focus in their everyday use of the language but they could only do so, similar to Blake and Bloomfield (Shibatani, 1988), in terms of variation in voice. However, it is not completely untrue to say that with their great attention given to verbs as manifested in the Latin verses, they were not too far off from discovering the semantic relationship between the predicate verb and the nominal in the nominative case, which essentially is determined by focus (Schachter & Otanes, 1972, p. 69).

4 Semantic Verb Grouping

Thus far we have seen how the early descriptions classified transitive verbs. First, they are either active or passive based on the cases of two specific nominals, i.e., the actor and the goal (or patient). Second, they are classified as active if the goal is indefinite or passive if the goal is definite. Then, they are subcategorized into three types on account of the meaning or role of the nominal that takes the nominative case, i.e., *y*-passive when the nominal refers to a real or metaphorical instrument, occasion, and cause for doing something; *an*-passive when referring to a place or anything like a place, and *in*-passive if it is some raw material for a finished product, etc.

ser, que se busque con esta luz, y no con otra, poniendo en esto el principal connato, y asi pondré la luz en nominativo, y le daré pasiva de *i* por la regla: *Instrumentum, & quasi*, diciendo: *itong ilao, ay ihanap mo nang libro sa silir*. El tercero puede ser, que se busque en la celda precisamente, y no en otra parte, sin especial connato, en el libro, ni en la luz; y en este supuesto, pondré la celda en nominativo, y le daré pasiva de *an* por la regla: *Sit nunc res, Sit nunc persona cum loci teneat rationem*. Diciendo, *ang silir ay hanápan mo nang libro nitong ilao*" (Totanes, 1745/1850, pp. 33–34).

In addition to these descriptions, we have also seen that certain verbs that have been grouped together based on their semantic content would tend to behave similarly, i.e., they take a common passive type or they take all three verbal affixes and follow the same sentence structure. This is the main point of the Latin verses that were used as a mnemonic device: knowing the denotational meaning of a verb root can help determine which of the three passive types is required. Contemporary linguists would later claim that there is some evidence of regularity in verb type and voice form, i.e., "some peculiar voice forms are shared by voice paradigms derived from verb roots of similar semantics" (Klimenko & Endriga, 2016, p. 484).

At the same time, one will notice that the verses that refer to the *in-* and *y-*passive types start with the word *verba* (verbs) while those of the *an-*passive start with *persona* (person). This points to the fact that voice is identifiable not only by examining the morphological shape and meaning of the verb but also by the semantic role played by the nominals, i.e., as semantic participants in a nonsubject position with syntactic marking. Thus, it could be seen that the idea of topicalization, which essentially is about nominal marking (Shibatani, 1988), could already be envisaged. However, the overwhelming currency of the subject category hindered the early grammarians from having an alternative view of the emphasized or intended nominal.

By analyzing the types of verbs that usually take a specific passive voice affix, one can see that these early descriptions have foreshadowed future ones that depart from the idea that one voice affix corresponds to one voice. In other words, the proposal that there can be more voices than the number of voice affixes can already be deduced (Klimenko

& Endriga, 2016, p. 483). This can also be extrapolated based on the nominals that take the nominative case in a passive sentence. Bloomfield (1917, pp. 153–154) renamed the three passives as direct, instrumental, and local. Eventually, more types will be identified since it has become too obvious that the term "patient" (*lo que padece*) (i.e., the goal) is insufficient to encapsulate the concepts of instrument, occasion, cause, place, direction, raw material, etc. While the early descriptions, including those of the American linguists, identified only three passive voices (and two active ones, *mag*- and *-um*-), clear references to other voice intentories have been made, such as those identified in Klimenko and Endriga (2016, p. 483): actor, patient, directional, locative, beneficiary, causal, and measure.

5 Conclusion

In summary, we can say that the early descriptions dating back to early 17^{th} century up to the late 19^{th} century succeeded in understanding and interpreting the passive voice or the non-actor construction in Tagalog using the linguistic methods available to them during that period. It is important to note that despite their inevitable dependence on Latin and Spanish, they knew better than to impose rules that could have prevented them from seeing the internal structure of the Tagalog passive verb or sentence. This could be attributed to their early recognition that they were dealing with a language that was typologically distinct from their reference languages.

By exhausting the potentials of noun cases, complemented by a general knowledge of semantic roles, the early grammarians defined and classified the passive voice, formulated its general and specific rules, and revealed features that could be studied further for a greater appreciation of this linguistic phenomenon. To recapitulate, the passive sentence is one in which the goal or the object which the verb refers to and upon which the action is performed is in the nominative case and marked with a definitizer, while the actor or the performer of the action is in the genitive case. Moreover, this goal is what is primarily intended or targeted among the nominals that may be present in the same sentence and can be serving a specific function such as the occasion, place, or instrument of the action.

In presenting examples or explaining the rules, the grammarians provided additional insights that would be useful for future studies or discoveries. These include the use of case markers to reveal the emphasized nominal, which later on would lead to the emergence of the concept of focus; the diversification of the category of goal into other roles which would become the basis of the "newer" types of passives, e.g., directional, locative, beneficiary; and the grouping of verb roots based on similar semantics that use similar voice-marking affixes that contemporary linguists would later use to hypothesize the existence of regularity in verb type and voice form.

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Cultivating Knowledge: T. H. Pardo de Tavera and Philippine Medicinal Flora¹

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Abstract

Trinidad Hermenegildo José María Juan Francisco Pardo de Tavera y Gorricho (1857–1925), a distinguished Filipino doctor and language scholar, was the Philippines' foremost intellectual from the late nineteenth to the early twentieth century. He assumed the inaugural chairmanship of the Department of Linguistics at the University of the Philippines Diliman, established on August 28, 1922. His timeless legacy is intricately woven into Filipino intellec-

¹This paper, originally titled "Man of His Time, Man Ahead of His Time: Trinidad Pardo de Tavera, 1857–1925: Premier Filipino Filipinist," was initially presented as a lecture in commemoration of the 100th anniversary of the Department of Linguistics, University of the Philippines Diliman (UPD) on September 29, 2022. This presentation took place within the framework of a webinar organized through collaboration between the Filipinas Heritage Library (FHL) and the Department of Linguistics at UPD. The lecture served as a tribute to Trinidad Pardo de Tavera, one of the founders and first chairman of the UPD Department of Linguistics.

tual history, particularly through his scholarly pursuits, including groundbreaking research on Philippine medicinal plants.

In his 1892 masterpiece, *Plantas medicinales de Filipinas* (Medicinal Plants of the Philippines), Pardo de Tavera not only conscientiously documented Filipino healing practices but also affirmed the Philippines' distinctive role in the global scientific community. As contemporary global interest increasingly focus on local medicinal knowledge, Pardo de Tavera's work stands as a timeless bridge connecting the past to the future. It sheds light on the brilliance of Filipino intellect and underscores the enduring relevance of local healing knowledge, emphasizing its significance in the ongoing discourse on traditional medicine.

1 Introduction

This paper examines Trinidad Pardo de Tavera's 1892 *Plantas medicinales de Filipinas* [Medicinal plants of the Philippines] within the broader context of Philippine history and Pardo de Tavera's life in the late nineteenth and early twentieth century. This groundbreaking book explores Philippine traditional medicine, focusing on the collection, study, and identification of traditional medicinal plants and herbs that Filipinos have utilized to address common and everyday ailments, some of which date back to the precolonial period. With meticulous attention to scientific nomenclature, Pardo de Tavera also recorded his findings in local

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languages and dialects thereby creating a comprehensive repository of local and traditional healing knowledge.

Highlighting *Plantas medicinales de Filipinas* in scholarly discourse is particularly pertinent at this juncture given the Philippines' acknowledgment as a biodiversity hotspot by the latter half of the twentieth century. This recognition underscores the country's remarkable abundance of plant species, many of which possess significant medicinal properties.

The Philippines stands out as one of Earth's most biologically diverse nations, ranking among the top 17 globally. Its terrestrial and marine environments are renowned for their significant endemism, with nearly half of its plant and animal species found exclusively within its 7,641 islands. In the latter part of the twentieth century, the Philippines gained recognition as one of the 18 megadiverse nations globally, positioning it as one of the most vital biodiversity hotspots on Earth. Boasting an estimated 13,000 to 15,000 plant species, 39% of which are unique to the country, it stands as the fifth largest repository of plant species worldwide, contributing 5% to the global flora (Convention on Biological Diversity, 2012). Among this vast array, over 1,500 species are identified for their medicinal properties (de Guzman, 2014, p. 220). Ongoing discoveries continue to underscore the richness of this biodiversity.

With 228 officially recognized Key Biodiversity Areas (KBAs), or sites that have concentrated and significant biodiversity, including threatened species, as well as those that are endemic or ecologically important, the Philippines is home to 855 globally significant species spanning plants, corals, mollusks, elasmobranchs, fishes, amphibians, reptiles, birds, and mammals. Moreover, the Philippines' exceptional agricultural ecosystem serves as the focal point for the diversity of rice, coconut, mung bean,

taro, and yam. It is also recognized as the center of origin and diversity for bananas in Southeast Asia (Convention on Biological Diversity, 2012).

By drawing attention to *Plantas medicinales de Filipinas* as a seminal work, we acknowledge Pardo de Tavera's pivotal role in documenting and preserving the traditional medicinal knowledge associated with the diverse flora of the Philippines. His comprehensive cataloging of medicinal plants not only expanded scientific understanding but also played a significant role in safeguarding local healing practices. Through his exploration of traditional medicinal plants Pardo de Tavera sheds light on the Filipino intricate healthcare systems predating colonial influence. In this regard, *Plantas medicinales de Filipinas* provides valuable insights into the precolonial Filipino heritage, fostering a comprehensive appreciation of the country's cultural and scientific legacy. These endeavors align with contemporary initiatives aimed at valuing, conserving, and ethically leveraging the Philippines' rich biodiversity.

This resonance is particularly noteworthy against the backdrop of ongoing progress in ecological consciousness and the evolution of conservation methodologies. Historically recognized primarily as a Spanish colony from the sixteenth to the nineteenth century, and later as an American colony in the twentieth century, the Philippines now invites a fresh exploration of its medicinal flora within the context of its rich and diverse natural heritage.

2 The Life of T. H. Pardo de Tavera²

Trinidad Hermenegildo José María Juan Francisco Pardo de Tavera y Gorricho (1857–1925), commonly known as T. H. Pardo de Tavera, was born to Spanish lawyer Félix Pardo de Tavera and Juliana Gorricho, daughter of wealthy landowner José Dámaso Gorricho, whose union created a prosperous family lineage. Pardo de Tavera hailed from an illustrious Filipino family with Portuguese roots. Raised in Cabildo Street, Intramuros, Pardo de Tavera's father, Félix, and uncle, Joaquín, studied law at the University of Santo Tomas. Pardo de Tavera had two other siblings, a brother, Félix, and sister, María de la Paz who married renowned Filipino painter Juan Luna (Manuel & Manuel, 1955, pp. 313–347; Santiago, 1994, p. 112). The Pardos de Tavera had a distinguished ancestry, including figures such as Juan Pardo de Tavera or the Marquis de Magahon (1472–1545), Spanish bishop, diplomat, and cardinal who left a significant mark in sixteenth century Spanish ecclesiastical history (Izquierdo, 1994, p. 30).

In the complex social landscape of Pardo de Tavera's era where racial categorizations held sway and lineage and physical attributes were significant in defining social hierarchies, he was identified as a *cuarteron*, denoting his three-fourths Spanish ancestry (Santiago, 1994, p. 112). While modern science has shifted away from rigid biological categorizations of race, the enduring societal perceptions at that time still framed race as a distinct aspect of ethnicity in daily life. Within this context, physical characteristics remained influential in determining group affili-

²A bibliography detailing the life and works of T. H. Pardo de Tavera is included at the end of this paper.

ations, shaping the context within which Pardo de Tavera's identity was perceived within the broader societal framework of his time.

Following the passing of his father Félix in 1864, Pardo de Tavera and his siblings found refuge under the care of his uncle Joaquín who had no children of his own. Joaquín later became a member of the Consejo de Administración (Council of Administration) in the Philippines, an influential advisory body to the Governor-General composed of prominent civil, military, and ecclesiastical figures. In the aftermath of the 1868 Glorious Revolution in Spain marked by political discontent and the unpopular rule of Isabella II, Joaquín became a proponent of reforms in the Philippines. This position put him at odds with the *peninsulares*, a development Joaquín had not anticipated.³ On January 21, following the 1872 Cavite Mutiny, Joaquín and other leading Filipinos were arrested and accused of involvement in proclaiming the establishment of the Philippine republic. Joaquín was detained in Fort Santiago, his residence was searched, and his communications were monitored. He was also barred from practicing law. During the court martial proceedings, Joaquín asserted his standing as a respected citizen who had made significant contributions to the state, with the expectation that Governor-General Rafael Izquierdo would vouch for him. However, Izquierdo distanced himself from Joaquín, claiming that Joaquín had long been under suspicion as a member of a secret anti-government group. Trial documents, however, suggest that the government was engaged in a broad vendetta against suspected Filipino subversives (Artigas y Cuerva, 1996, pp. 153-155, 167-177; Paredes, 1994, pp. 347-417).

³The term "peninsulares" refers to Spaniards who were born in Spain and residing in the Spanish colonies. Their birth in Spain granted them the highest social standing in the colonies.

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On February 15, 1872, Joaquín received a four-year exile sentence and on March 14, 1872, he was transported to the Marianas where he resided with his wife for the duration of four years, from 1872 to 1875. Although pardoned in 1875, Joaquín was barred from returning to Manila so he chose to reside in Paris with his wife, Gertrudis (Artigas y Cuerva, 1916, p. 181). Reflecting on the events in 1872, Pardo de Tavera said:

Nada vino á destruir la desconfianza y el recelo que, desde los sucesos de Cavite y su cruel represión, existía entre españioles y filipinos, entre estos y los frailes principalmente. Muchos añios debían pasar para que se cicatrizaran las heridas abiertas en tantas familias que sufrieron los injustos castigos impuestos por los consejos de guerra. Pero nada se hizo para hacer olvidar aquella enorme injusticia: al contrario, continuamente se recordaba con el fin de mantener un sano temor, lográndose sólo mantener un descontento creciente. Desde entonces se adoptó el sistema de dar carácter politico á cualquier cuestíon que surgía entre españoles y filipinos. Cualquier acto contrario á un fraile era siempre interpretado como una demostración de sentimientos antiespañoles. (Pardo de Tavera, 1906, p. 71)

[Nothing emerged to dispel the deep-seated mistrust and suspicion that had persisted since the events in Cavite and the harsh repression that followed, particularly between Spaniards and Filipinos, and notably between them and the friars. Many years had to pass for the open wounds (heridas abiertas) inflicted by the unjust sentences handed

down by the courts-martial to begin to heal for the affected families. However, no efforts were made to allow this grave injustice to fade from memory; instead, it was consistently recalled, perpetuating a climate of apprehension and fueling a growing discontent. Consequently, a pattern emerged wherein any issue arising between Spaniards and Filipinos was politicized, with any action against a friar being invariably construed as an expression of anti-Spanish sentiment.]

While still a student, Pardo de Tavera bore witness not only to his uncle's exile to the Marianas but also to the shifting social status of their family in Spanish Manila. In 1873, he earned his Bachelor of Arts degree from the Colegio de San Juan de Letran. Subsequently, while pursuing his medical studies at the University of Santo Tomas, he received an invitation from his uncle to further his education in Paris. Seizing the opportunity, Pardo de Tavera pursued his medical studies at the University of Paris, where he obtained his medical degree in 1880. Notably, he became the first Filipino to publish a medical article in a professional journal. In addition to his medical endeavors, Pardo de Tavera dedicated himself to the study of Malay. In December 1885, he obtained his diploma in the Malay language from the École Speciale des Langues Orientales Vivantes (now known as the Institut National des Langues et Civilisations Orientales) (Zaide, 1993, pp. 302–303; Santiago, 1994, pp. 112–114, 115–117).

As the Philippine-American War loomed, Emilio Aguinaldo appointed him Director of the Division on Diplomacy, although he resigned in 1898 due to conflicting views with Aguinaldo on Philippine independence (Majul, 1960, p. 158; Constantino, 1975, p. 233).

3 T. H. Pardo de Tavera's Intellectual Odyssey: Vision of Progress for the Philippines

Under the Americans, T. H. Pardo de Tavera was appointed a member of the United States Second Philippine Commission under William Howard Taft on September 1, 1901, alongside Benito Legarda and José Luzuriaga (Artigas y Cuerva, 1916, p. 663). Appointed by President William McKinley on March 16, 1900, the Second Philippine Commission, often referred to as the Taft Commission, wielded both legislative and executive authority. Despite its predominantly executive role, the Taft Commission played a crucial part in enacting laws from September 1900 to August 1902 (Malcolm, 1921, pp. 93–96).

Prior to assuming the role of Commissioner, Pardo de Tavera had already gained recognition from Spanish authorities. Despite his family's history which had led to him being labeled a "filibuster," he was appointed as a member of the Spanish Consultative Assembly (Constantino, 1975, p. 233). This acknowledgment was largely influenced by the nineteenth-century realization among Spanish intellectuals and some administrators at that time that Spain had limited knowledge of its colonies, including the Philippines, a deficiency crucial for effective colonial rule. This knowledge gap was also considered a contributing factor to the erosion of Spanish control over its colonies. Segismundo Moret y Prendergast, *Ministro de Ultramar* (Minister of Colonies/Overseas Minister) in 1870, expressed his dismay that the Philippines *es más conocído en el extranjero que en nuestro propio país* [was better known abroad than in our own

country].⁴ Such was his concern that he eventually established two professorial chairs at the Central University of Madrid devoted to the study of the Philippines and the Filipinos, among other related endeavors (Montero y Vidal, 1895, p. 537; Thomas, 2016, pp. 41–42).

In 1884, Pardo de Tavera underscored these observations by citing the limited involvement of Spanish writers in Philippine ethnography (Pardo de Tavera, 1884, pp. 5–6). As a result, the landscape of Philippine ethnography in the nineteenth century bore a significant influence from German and Austrian scholars, the most notable was Ferdinand Johann Franz Blumentritt, suggesting a greater interest from these scholars compared to their Spanish counterparts (Thomas, 2016, p. 43). Three years later, Pardo de Tavera noted the contrast between Java and the Philippines. While Java possessed a rich array of precolonial artifacts including temples, statues, chronicles, and literary traditions ripe for historical exploration, the Philippines lacked such tangible monuments, statues, or extensive literature that could provide comparable historical insights. Faced with this reality, Pardo de Tavera embarked on a quest to devise alternative methodological approaches to derive historical insights from the limited materials available to him (Thomas, 2016, p. 34; Pardo de Tavera, 1884, pp. 5–6).⁵

⁴The Ministry of Overseas, also known as the Ministry of Overseas Affairs, Ministry of Overseas Territories (in Spanish, *Ministro de Ultramar*), or simply *Ultramar*, held authority over Spanish territories from 1863 to 1899. This office managed the administration of the Philippines, Cuba, Puerto Rico, and the Carolinas, Marianas, and Palaos.

⁵Pardo de Tavera's comparison between Javanese and Philippine history, drawing parallels between temples and literary traditions, echoes the concept of civilizations proposed by cultural anthropologist Robert Redfield. Redfield's framework emphasizes the interdependent "great" and "little" traditions as essential for understanding social change. However, critics have scrutinized Redfield's model for its inherent hierarchy,

In 1887, equipped with scientific training and empowered by a Spanish royal commission from Regent Queen Maria Christina of Austria granting him authority to apply his medical expertise in the pursuit of scientific advancement, Pardo de Tavera embarked on a journey from Paris to Manila. His mission was to study the medicinal properties of Philippine plants. This commission, which led to his groundbreaking 1892 work *Plantas medicinales de Filipinas*, was just one of numerous recognitions he received from the Spanish government (Anargyroi, 2020). In a letter dated October 19, 1887, addressed to Blumentritt, José Rizal, the esteemed national hero of the Philippines, corroborated Pardo de Tavera's affiliations with the Spanish government in Manila. Rizal wrote:

As many in Manila are apprehensive about my visits, I no longer call on Pardo. He holds government commissions, and I would not wish to soil his white gloves with my hands that are stained from writing novels. These occurrences are not uncommon in my country, but, deep down, we remain friends, at least as far as I am concerned. (Rizal, 1961, p. 144)

Blumentritt (1853–1913), a Bohemian schoolteacher, wrote extensively about the Philippines, drawing inspiration from his childhood fascination with the Spanish colonial world, likely influenced by the books and artifacts of his Peruvian uncle. The family tale of his father's lineage from a governor-general of the Philippines was most likely also crucial in shaping his specific interest in the country (Craig, 1913, pp. 68, 82;

which associates little traditions with peasants and great traditions with the elite, raising concerns about its potential bias.

Sichrovsky, 1987, pp. 4–7). His deep affinity for the Philippines sets him apart as the first European Filipinist in the modern era who championed the Filipino movement for reforms during the Spanish colonial period, a distinction that is notably ironic since his strong connections with the Philippines never translated into a personal visit to the country.

Blumentritt is widely celebrated in the Philippines for his lasting friendship with Rizal, a bond that left an indelible imprint, shaping not only their own lives but also resonating through the annals of Philippine history. Rizal's careful preservation of their exchanges provides invaluable glimpses into his life and the societal landscape of the Philippines during that era. For historians and scholars, their extensive correspondence is an indispensable resource shedding light not only on Rizal's life and legacy but also offering a panoramic view of the broader historical context of the Philippines in the late nineteenth century.

Returning to Pardo de Tavera, his inclusion in the Taft Commission, alongside Legarda and Luzuriaga, marks a significant milestone in Southeast Asian history. It represents the first instance where colonial subjects were afforded both a voice and a vote within the highest echelons of a colonial administration in the region (Cullinane, 2003, p. 148). Historian Michael Cullinane highlights Pardo de Tavera and Legarda, both hailing from Manila, for their "impeccable Americanista credentials" (2003, p. 66). Pardo de Tavera, in particular, was hailed as "the interpreter of American intentions towards the Philippines," and "right-hand man of Governor-General Taft in the establishment of civil government" (Kalaw, 1926, as cited in Mojares, 2006, p. 147). Luzuriaga, representing Negros Occidental, epitomized a provincial elite pivotal in staunchly opposing local resistance to American rule in the

island province, being "most active in preventing the insurrection from gaining any foothold in that important island" (*Report of the Philippine Commission*, 1901, pp. 16–17; Cullinane, 2003, p. 66). In his book, *Ilustrado Politics: Filipino Elite Responses to American Rule, 1898–1901* (2003), Cullinane offers a careful examination of Pardo de Tavera and his contemporaries' actions, providing a window through which the political terrain of late nineteenth and early twentieth-century Philippines may be viewed. This insightful narrative shows how Pardo de Tavera and the Filipino elites skillfully navigated the intricacies of the new colonial order, leveraging their positions to ascend to national leadership during the period of American rule in the country.⁶

For Pardo de Tavera's critics, his association with the Americans appears self-evident. Nevertheless, it is essential to acknowledge that Pardo de Tavera's personal and familial background, along with his observations of his fellow Filipinos' experiences under Spanish colonial rule, deeply influenced his political beliefs. As he himself stated:

The Spanish, in the ultimate period of our relations with them, did not treat us as colonies, but liked to have us treated as an integral part of the homeland. We were not

⁶See Michael Cullinane, *Ilustrado Politics: Filipino Elite Responses to American Rule,* 1898–1901 (2003). Cullinane's insightful study, anchored in meticulous research, takes readers on a journey through the political landscape of the late nineteenth and early twentieth century in the Philippines. It sheds light on the nuanced responses and calculated maneuvers of the ilustrados, including Pardo de Tavera, as they grappled with the challenges and opportunities presented by the American colonial administration. Against the backdrop of historical transformation, Cullinane provides a deeper understanding of the multifaceted strategies that Filipinos employed to assert influence and shape the trajectory of their nation. Cullinane's work serves as a captivating window into a pivotal period in Philippine history, where the interplay of politics, power, and national identity unfolds with intricate precision.

a part of the Spanish colonies, but a part of the Spanish nation. Naturally that created in us a sentiment of nationality as we considered ourselves as a real part of "The Patria Espanola" [Spanish homeland]. Personally I was led to the consideration of how I might become useful to her, and during the Spanish epoch I became acquainted with the errors of that administration, and for the benefit of my country, I wished to work together with the Spanish then in power, in order to correct some of the abuses and modify the situation. (Norton, 1914, p. 98)

Pardo de Tavera's alliance with the Americans was not without complexity given his family's history of adversity under Spanish rule. This sentiment is reflected in Rizal's letter to Blumentritt dated September 4, 1888. Rizal wrote:

The Pardo family received a letter from their daughter-inlaw informing them that Trinidad Pardo de Tavera has been forbidden to treat patients. Beware! Is this the first blow against Pardo? Pardo de Tavera has many enemies among the Peninsular Spaniards in Manila. Of that I am sure, but I thought that they would behave with more prudence. (Rizal, 1961, p. 198)

One year later, in 1889, following Pardo's return to France, Rizal conveyed his observations about Pardo de Tavera to Blumentritt in a letter dated May 8, 1889. He wrote:

T. H. Pardo de Tavera has just arrived. He says that life in the Philippines is becoming impossible. They wanted

to search his home and confiscate his books, if he had not left immediately. He believes if conditions do not improve, before the lapse of ten years, a great revolution will break out. Be careful with this opinion; I am imparting it to you as a good friend. (Rizal, 1961, p. 255)

Given his personal experiences and understanding of colonial dynamics, Pardo de Tavera arrived at a pivotal juncture where forging strategic alliances became paramount in envisioning a new future for the Philippines and the Filipinos. In this regard, it is possible to infer that in the aftermath of the Spanish-American War and the subsequent Treaty of Paris in 1898, which signified the transfer of the Philippines from Spanish to American control, Pardo de Tavera perceived an opportunity to break free from the yoke of Spanish colonialism. Acknowledging the futility of resisting the Americans and recognizing his compromised position, Pardo de Tavera was also aware that the shifting landscape of colonial powers marked a definitive turning point. This presented a chance for reform and a departure from the enduring injustices that had plagued Filipino lives for centuries (National Historical Institute, 1996, p. 87). By aligning himself with the Americans, Pardo de Tavera envisioned the possibility of a new chapter in Philippine history. He said:

I did not take part in the revolution against Spain, nor did I know the inside workings of the Katipunan, which was the force which brought about the revolution. I worked with the Americans for the establishment of peace and for the new organization, for I had confidence in the principles of justice of the American people and the generosity which

characterizes their history, and each act of my political and private life has been guided for the thought of the benefit to my people of their coming to these islands, and for the harmony and friendship between the Americans and Filipinos. (Norton, 1914, p. 98)

It seems that Pardo de Tavera's decision to side with the Americans was not merely a practical response to geopolitical realities, but also a calculated move to leverage American governance in addressing the longstanding grievances of Filipinos. In doing so, his cooperation was a purposeful step towards realizing his vision of a more progressive and just future for both the Philippines and the Filipinos.

Pardo de Tavera fervently promoted social transformation by endorsing contemporary Western values deeply rooted in Anglo-Saxon traditions. He saw these values as pivotal in propelling social, political, and cultural advancement, with education serving as a catalyst for both individual and societal progress. Alongside advocating for healthcare as an intrinsic right, he vigorously supported political reforms and anti-corruption initiatives, aware of their critical importance in nurturing transparency and accountability in governance. He also advocated for civil liberties, including freedom of speech, assembly, and expression as indispensable elements of the progressive ideals that shaped his social philosophy and agenda for national development (Mojares, 2006, pp. 213–230).

During an assembly of teachers in Baguio, Pardo de Tavera seized the moment to tackle the pervasive *legado del ignorantismo* (legacy of ignorantism) perpetuated by Spanish friars. He attributed this phenomenon to the religious orientation of the educational system enforced during

Spanish rule, which he likened to a spreading *lepra de la superstición* (leprosy of superstition) (1920, p. 36). Highlighting the broad impact of this influence and its profound implications for the nation's advancement, he stressed that it was not just a concern for Filipinos but also all residents of the Philippines indiscriminately. According to him:

Como hasta la llegada de los americanos la enseñanza en Filipinas fué siempre y exclusivamente religiosa, y dirigida por los sacerdotes romanos, la persistencia de antiguas supersticiones son una demostración del fracaso de la educación religiosa. Tendrían por excusa los misioneros culpar a la rudeza invencible del filipino, que podríamos admitir por cortesía y para evitar discusiones. Pero lo grave no es que ellos *no pudieron quitar* algo de la supuesta cabeza dura del indio, sino el tremendo caudal de supersticiones que durante más de tres siglos, esos misioneros *han hecho penetrar* en esa misma cabeza con tan grave perjuicio para su mentalidad y su moralidad. (Pardo de Tavera, 1920, p. 28)

[Until the coming of the Americans education in the Philippines was always and exclusively religious, under the direction of the Roman Catholic missionaries. The persistence of these old superstitions are proofs of the failure of religious education. Missionaries will perhaps attribute this to the supposed stubbornness of the Filipinos, a notion we shall concede to for politeness and to avoid contention. However, what matters is not their inability to eradicate these superstitions due to the

perceived obstinacy of the Indio, but rather the extensive propagation of superstition over more than three centuries and how these missionaries inculcated these in his mind (han hecho penetrar) to the detriment of his mentality and his morality.]

Pardo de Tavera's support of American rule in the Philippines was rooted in his belief that Filipinos lacked crucial values necessary for progress, which he asserted could be acquired through a secular, scientific education, a model that the Americans purportedly possessed. In the same speech, he said:

Para que la educación sea útil, tiene que formar en el individuo el *sentido de responsabilidad* mediante el libre automático ejercicio de la razon. El cumplimiento del deber sera su objetivo; para conseguir tal fin es indispensable desarrollar en el hombre la voluntad por medio de la cual luchará contra los instintos bestiales, contra los impulsos sentimentales, contra todo lo que se halla en oposicion a los dictados de la razón. Mentalidad logica para saber lo que debemos hacer, para poder trazarnos un camino justo que seguir: Voluntad, para lograr sobreponer los dictados de nuestra razón a los impulsos de nuestros deseos. Este es el objeto de la educación laica, de la educación de las escuelas sin Dios, aquí con las escuelas del gobierno.... (Pardo de Tavera, 1920, p. 36)

[Education is most effective when it instills a sense of responsibility in individuals through the unfettered exercise

of reason, guiding them toward fulfilling their duties. This entails developing their willpower to overcome instinctual and emotional impulses that contradict rationality. The primary objective of education is to cultivate logical thinking and determination, empowering individuals to prioritize rational decision-making over personal desires. This form of lay education aims to equip individuals with the tools necessary to navigate a just path guided by reason. This is the aim of secular education, which is provided in what are often termed "godless schools," or here [Philippines] in government schools....]

Pardo de Tavera faced significant criticism for his vocal pro-American stance, particularly from Filipinos advocating for Philippine independence in the early decades of the twentieth century. Even contemporary scholars and authors have censured him for his political position. One prominent figure was Nick Joaquin, National Artist of the Philippines for Literature, recognized as one of the most significant literary figures alongside Rizal. Joaquin wrote:

The fate of [José] Burgos (the garrote) and of [Antonio María] Regidor (exile) put an end to the idea of eventualism. The Creoles that come after—mostly educated on the Continent and affiliated with the Masonic Order—are already frankly *filibusteros*—that is, subversives—and their greatest spokesman is Marcelo H. del Pilar, the Creole who undoubtedly possessed the most brilliant mastery of Spanish a Filipino ever wielded but whose talent got deadened by journalistic deadlines. But the extremist develop-

ment of the Creole as filibustero was Trinidad Pardo de Tavera, a man who came to loathe both the Malay and the Spaniard in himself so intensely he became the first of the *sajonistas*⁷ and, as a member of the Philippine Commission of the 1900s, fought for the implantation of English in the Philippines, in a virulent desire to uproot all traces of Spanish culture from the islands. For good or evil, Trinidad Pardo de Tavera, whom we hardly remember, was one of the deciders of our fate. [emphasis added] (Joaquin, 1977, p. 69)

Examining the basis of Pardo de Tavera's confidence in American values reveals a nuanced connection between his pro-American sentiments and his steadfast commitment to the welfare of Filipinos. However, while these convictions were motivated by a genuine desire to witness the prosperity of the Filipino people and underscored his belief in the advantages of American ways of life, his involvement in the "nationalist narrative" cast a shadow over his accomplishments (Mojares, 2006, p. 121). For Teodoro A. Agoncillo, one of the pillars of Philippine historical writing, "Pardo de Tavera should have been shot for his betrayal of the Revolution" (Agoncillo, 1997, p. 551).

In 1900, he established the Federal Party that fervently championed the annexation of the Philippines as a state within the American Union. This move, while reflective of Pardo de Tavera's pro-American stance, would eventually become his most significant misjudgment. The repercussions of this decision reverberated through the national elections

⁷ Sajonistas are individuals who embraced the American way of life, including their fashion choices and cultural habits.

of 1907, where the electorate rejected the Federal Party's platform. In a notable shift, the Filipinos endorsed Sergio Osmena and Manuel Quezon's Nacionalista Party (NP). The NP's rallying cry for "immediate, complete, and absolute independence" resonated with what appeared to be the aspirations of a nation yearning for self-determination.

Pardo de Tavera's vision for a closer integration with the United States, as embodied by the Federal Party, collided with the prevailing sentiment of the time—a fervent desire for autonomy and nationhood. He envisioned the Philippines being admitted to the "American union" and believed that an independent Philippine state was not the most "dignified" option (Cornejo, 1939, p. 353; May, 1983, p. 359). In hindsight, this stands as Pardo de Tavera's most profound divergence from the nationalist tide, a decision that would be scrutinized by generations to come. Pardo de Tavera passed away on March 26, 1925 in Manila (Zaide, 1993, pp. 302–303).

4 T. H. Pardo de Tavera and Plantas medicinales de Filipinas (1892)

In an era dominated by the triumph of Western scientific traditions and the ascendancy of modern medicine over conventional beliefs, Pardo de Tavera navigated the complexities of two colonial periods—Spanish and American—witnessing the Philippines' transition into the modern era and leaving an indelible mark on Philippine culture through his scholarly writings on different aspects of Philippine life, including Filipino medicinal practices based on traditional medicinal plants.

In 1887, seven years after earning his medical degree from the University of Paris, Pardo de Tavera received a Spanish Royal Commission from Regent Queen Maria Christina of Austria, known for her intelligence and strong leadership qualities. Due to his family's history and the prevailing perception of his family by the Spanish government in the Philippines, it was probably challenging for Pardo de Tavera to return to the Philippines on his own. Owing to his academic achievements, he managed to secure a Commission directly from the Queen of Spain herself, enabling his return. Departing from Paris to Manila, Pardo de Tavera's goal was to explore the medicinal properties of Philippine flora, leading to his groundbreaking 1892 publication, *Plantas medicinales de Filipinas*, a project he had personally funded (Mojares, 2006, p. 130).

Pardo de Tavera's *Plantas medicinales de Filipinas* represents the third significant contribution to the study of traditional medicinal plants in the Philippines. Preceding works include Francisco Ignacio Alcína's "Breve resumen de las raíces, hojas o plantas medicinales mas conocidas" [A brief summary of the best known medicinal roots, leaves, and plants, etc.], a chapter in his 1668 *Historia de las Islas e Indios de Bisayas* [History of the Bisayan people in the Philippine Islands: Evangelization and culture at the contact period]. Alcína's work offers insights into precolonial medicinal practices, cataloging plants and herbs that Filipinos used to treat common ailments. Another notable work is Francisco Manuel Blanco's *Flora de Filipinas según el sistema sexual de Linneo* [Flora of the Philippines according to the Linnaean system], first published in 1837. This comprehensive botanical text describes approximately 1,200 species. Regarded as the inaugural extensive botanical study of Philippine flora

during the Spanish colonial period, Blanco's work is significant for its systematic exploration of plant life in the Philippines, including those plants with medicinal use.

Plantas medicinales de Filipinas is a remarkable work, notable for being both financed and meticulously crafted by a Filipino with an exceptional educational background who also happened to be a colonial subject. Educated during a period of vibrant intellectual ferment and reform in post-revolutionary France, an era that German philosopher Walter Benjamin referred to as "the capital of the nineteenth century," added further depth to Pardo de Tavera's personality and accomplishments (Benjamin, 1978, as cited in Mojares, 2006, p. 127). Nevertheless, it was not only the France of the 1870s that inspired Pardo de Tavera's Plantas medicinales de Filipinas.

By mid-sixteenth century, botanical gardens have become integral to a continent-wide (i.e., European) intellectual movement, typically affiliated with universities and overseen by physicians and apothecaries, serving as physic gardens. In 1593, Henri IV authorized Pierre Richer de Belleval, a physician, to establish the Montpellier Botanical Garden for the medical institution affiliated with the University of Montpellier, with the aim of promoting health through the study of medicinal plants. By the sixteenth century, Montpellier emerged as a prominent center for botany, with the discipline being taught at the Faculty of Medicine. The Royal Garden of Montpellier stands as the oldest botanical garden in France. In 1635, King Louis XIII commissioned Guy de La Brosse, a prominent French botanist, medical practitioner, and pharmacist who was also his physician, to build a botanical garden specializing in medicinal herbs. This garden, initially called Jardin du Roi and later

Jardin des Plantes, marked the inception of Paris's first botanical garden and the second in France, following the creation of the Montpellier garden in 1593 (Duval, 1982, p. 31).

As French territorial expansion led to gardens becoming symbols of French political culture, these endeavors gained further momentum, particularly during the seventeenth and eighteenth centuries. The botanist René-Robert Cavelier, Sieur de La Salle, known for his exploration of the Great Lakes region in the United States and Canada, as well as the Mississippi River, sent walnuts, mulberries, oaks, and various other tree species from Canada to the Jardin de Roi in France to support reforestation efforts (Duval, 1982, p. 31). The context of France's monarchical pursuits and legacies likely played a role in shaping Pardo de Tavera's exploration of Philippine medicinal plants. One indication of this influence is the Royal Commission he obtained to write *Plantas medicinales de Filipinas*.

4.1 Plantas medicinales de Filipinas: Insights into T. H. Pardo de Tavera's Personality

Originally published in Spanish in 1892, *Plantas medicinales de Filipinas* was later translated into English by Jerome Thomas, a United States Army Surgeon. The translation, published in 1907, was intended to facilitate the study of local medicinal plants by American medical officers for possible use of the American Army throughout the Philippines, as well as a resource for botanists and pharmacists in general (Schneider, 1902, p. 162). The initial section of the translated book comprises an English translation of the Spanish edition originally released in 1907, as well as the original Spanish text publish in 1892, which is the primary

basis of this research paper. Interspersed between the two versions are vivid illustrations depicting the plants referenced within the text.

The book comprises 341 pages, divided into sections detailing medicinal plants along with their scientific names, popular names in the principal Philippine language or dialect these plants are called, descriptions, and uses. It also includes an index categorizing plants based on their qualities, along with assorted notes on their medicinal properties. In addition, there is an alphabetical list of common ailments treated by these plants. At the end of the book is a general index for further clarification and reference (Alzona, 1980, p. 3).

In the preface, written in Paris in April 1892, Pardo de Tavera describes how he was assigned by the Spanish government to study the medicinal plants of the Philippines. Despite his attempts to ship samples to Paris for scientific analysis and testing, the plants were inadequately packed for the long ocean journey. Regrettably, due to improper packing none of the specimens survived the voyage (Pardo de Tavera, 2000, p. 222). He wrote:

Desdichamente, al salir de Manila confié el cuedado de ambalar mis plantas á una persona inexperta, que hizo la torpeza de poner en medio de ellas algunos tubérculos suculentos, que en el viaje entraron en descomposición, destrozando así, con la humedad que despedieron, las plantas secas que allí había. (Pardo de Tavera, 2000, p. 223)

[Unfortunately, before departing from Manila, I delegated the responsibility of packing my plants to an inexperienced individual. Regrettably, this person made the imprudent decision to intersperse succulent tubers among the specimens. As a result, the tubers began to decompose during the journey, emitting moisture that damaged the surrounding dry plants, ultimately leading to their destruction.]

Pardo de Tavera's candid remarks regarding the packing of his plants offer valuable insight into his intolerance for inefficiency and his willingness to address inadequacies. In this light, *Plantas medicinales de Filipinas* also provides a glimpse into his personality. It is therefore unsurprising that he became increasingly critical of the Spanish and, eventually, the Americans towards the latter part of the first decade of the twentieth century. Similar scrutiny extended to certain members of the Philippine revolution. His meticulous attention to detail and refusal to accept incompetence, even in the seemingly mundane task of packing plants, may also mirror broader attitudes towards governance and administration. This suggests a possible link between his personal experiences and frustrations with bureaucratic inefficiency, and his subsequent political stance advocating for reform under American rule.

4.2 Expanding the Reach of Philippine Medicinal Flora

Plantas medicinales de Filipinas demanded extensive efforts from Pardo de Tavera, encompassing fieldwork for 214 specimens organized according to family and genus, along with scientific and local names, morphology, anatomy, chemical properties (when applicable), habitat, uses, and preparation. The book includes correlations of the medicinal use of some plants with other countries, such as Brazil and India, for example, in the case of the mango tree (Mangifera indica L.). Drawing

from the work of Edward John Waring, surgeon in the British East India Company and author of *Pharmacopoeia of India: Prepared Under the Authority of Her Majesty's Secretary of State for India in Council* (1868), Pardo de Tavera wrote:

La almendra que se encuentra dentro de la pepita, desicada y pulverizada, se administra como antihelmintica á la dosis de 1, 50 á 2 gramos, en la India y en el Brazil. Esta misma almendra se emplea en Filipinas para combater la disentería y la diarrea. (Pardo de Tavera, 2000, p. 283)

[The desiccated and pulverized kernel found within the seed (of the mango fruit) is administered as an anthelmintic at a dose ranging from 1.50 to 2 grams in both India and Brazil. The kernel is similarly used in the Philippines to combat dysentery and diarrhea.]

Pardo de Tavera notes the identification of similar plants also found in other areas, such as the betel or *buyo* (*Piper betle* L.), which is popularly used in the "Orient." Pardo notes:

Con la hoja de esta planta, un poco de cal de ostras apagada y una rodaja de la bonga ó nuez de arec, se hace un masticatorio, usado en todo el extremo Oriente, que se llama buyo en Filipinas. (Pardo de Tavera, 2000, p. 388)

[A mixture of the plant's leaf, a small amount of slaked oyster lime, and a slice of *bonga* or areca nut creates a chew, widely utilized throughout the Far East and known as *buyo* in the Philippines.]

The *buyo* or betel leaf was a common delicacy enjoyed across the Philippines and other Southeast Asian countries. It is typically chewed alongside a seed or nut from the areca palm (*Areca catechu* L.), or *bonga* (areca nut), which has a white core. The *bonga* is sliced lengthwise and placed within the rolled betel leaf, along with a small amount of very moist quicklime. This rolled concoction is then placed in the mouth and chewed. In the Visayan Islands of Panay and the Province of Negros Occidental, this practice is referred to as *mamâ*, with the resulting mixture termed *mam-in*. During the American colonial period in the Philippines, the Americans noted the use of betel among Filipinos. In its February 1852 issue, *Harper's New Monthly*, the oldest continuously published monthly magazine in the United States, reported the widespread and commonplace use of betel that Americans had observed. It reads:

In Manila everyone smokes, everyone chews buyo—man, woman, and child, Indian or Spaniard. Strangers who arrive there, though repudiating the habit for a while, soon take to it, and become the most confirmed buyo eaters in the place. Two acquaintances meet upon the paseo, and stop to exchange their salutations. One pulls out his cigarrero and says, "Quiere usted fumar?" (Will you smoke?) The other draws forth the ever ready buyo case, and with equal politeness offers a roll of the buyo. The commodities are exchanged, each helping himself to a cartridge and a cigarrito. A flint and steel are speedily produced, the cigars are lit, and each takes a bite of buyo, while the conversation is all the while proceeding. Thus three distinct operations

are performed by the same individual at the same time—[chewing], smoking, and talking! The juice arising from the buyo in [chewing] is of a strong red color resembling blood. (Project Gutenberg, 1852; see also Planta, 2017, p. 44)

The book was accomplished through interviews with locals and most likely indigenous healers, laboratory analysis, and a thorough study of scientific literature and existing works on Philippine botany. These works include Manuel Blanco's Flora de Filipinas (1883), Fernando de Santa Maria's Manual de medicinas caseras para consuelo de los pobres indios en las provincias, y pueblos donde no hay médicos, ni botica [Manual of home remedies for the relief of the poor Indians, in the provinces and towns where there are no doctors or pharmacies] (1815), and Ignacio Mercado's Libro de medicinales de esta tierra, y declaraciónes de las virtudes de los árboles y plantas que están en estas Islas Filipinas [Book of medicines of the Philippines: Declarations of the virtues of trees and plants indigenous to these islands] (1698). Mercado's records of his findings on local plants and their medicinal properties were later on incorporated into Blanco's Flora de Filipinas. Blanco's work remains the foremost comprehensive book on botany and Philippine flora during the Spanish colonial period. Santa Maria's meticulous documentation of traditional medicinal plants and herbs using local and commonly recognized names facilitated their identification. Notably, Santa Maria's Manual stands as the sole translated publication on Philippine medicinal plants and herbs written in Tagalog between the eighteenth and early twentieth century. Its accessibility in the local language suggests widespread use among Filipinos (Planta, 2017, p. 128).

4.3 Pioneering Advocacy: T. H. Pardo de Tavera and Local Medicinal Knowledge

Plantas medicinales de Filipinas is not only a catalog of Philippine medicinal plants but also a testament to Pardo de Tavera's faith in the indigenous healing practices and local medicinal knowledge of the Filipino people.

By meticulously documenting these plants and their traditional uses, Pardo de Tavera not only preserved valuable botanical information but also validated the efficacy of Filipino traditional medicine. Through his work, Pardo de Tavera sought to bridge the gap between Western scientific knowledge and indigenous healing practices. He recognized the importance of incorporating local wisdom into the broader framework of medical science, acknowledging the centuries-old tradition of Filipino healers and their deep understanding of the healing properties of native plants. He said:

La aplicacíon de los vegetalesque en la terapéutica hacen los curanderos filipinos, es Mirada con desprecio por ciertos medicos, por se completamente empírica. Este desprecio es injustificado; en todos los medicamentos más racionales, más científicos que hoy empleamos, el primer paso, la primera etapa del proceso seguido has su final desarollo, se debe al empirismo, que se funda en la experiencia diaria, en la observacíon de resultados obtenidos en determinado caso, que de padres á hijos han conservado generaciones enteras. Falta la explicacíon científica; pero esas primeras nociones, debidas frequentemente á la casualidad ó tal vez á la supersticíon, han tenido á menudo por base fundamental

la observacíon de hechos que, no por ser fortuitous, dejarán de ser positivos. (Pardo de Tavera, 2000, p. 223)

[Some physicians view the therapeutic practices of Filipino "herb-doctors" (*curanderos*) with skepticism, dismissing them as purely empirical. However, this criticism is unwarranted, as empirical methods form the foundation of many of the most rational and scientifically accepted remedies. Empiricism, rooted in daily experience and generations of observation, serves as the initial step toward the development of these remedies. While the scientific rationale may be absent, the origins of these practices often stem from chance occurrences or superstitions, which nevertheless are based on tangible observations and phenomena.]

While the focus of the book is on the medicinal uses of the plants included in the list provided, these plants generally serve various purposes predating the colonial period and range from being food or medicine, depending on their preparation, intended use, and the individual's health condition.

An interesting example is the coconut (*Cocos nucifera* L.), which Pardo de Tavera considered, along with sugarcane (*Saccharum officinarum* L.), the most indispensable plant in the Philippines. He wrote: "Es quizas la planta más útil de Filipinas: sin ella y sin la caña no se comprendería la vida en el Archipiélago" [It is arguably the most indispensable plant in the Philippines; life in the Archipelago would be incomprehensible without it and sugarcane] (Pardo de Tavera, 2000, p. 414). In the context of the cholera epidemics then, the coconut was not only a fruit but was a vital component in the quest for a cholera cure. In his 1663

Labor evangélica: Ministerios apostólicos de los obreros de la Compañía de Jesús en las islas Filipinas [Evangelical work of the Jesuit missionaries in the Philippine Islands], Jesuit missionary Francisco Colin recounts the 1628 cholera epidemic and writes:

El año de mil seiscientos y veinte y ocho corriedo en esta ciudad de Manila un genero de peste, que en pocas horas quitaba lu vida, particularmente a gente flaca de estomago, o mal mantenida, dieron los nuestros en aconsejar este remedio del aceite del Manunggal, con tan buen suceso, que se dijo no habia muerto ninguno de los que lo tomaron con tiempo.

Usanlo "el Manunggal" hecho polvo o raspado, y desleido en agua tibia o en aceite de coco. (Planta, 2017, p. 106; see also Colin, 1904, p. 102)

[In 1628, a devastating plague ravaged the city of Manila, claiming the lives of those with weak stomachs or poor health in a matter of hours. The locals turned to *manunggal* oil, and its efficacy proved remarkable. It was widely reported that none of those who promptly consumed it succumbed to the disease.

Use the powdered or scraped form of the *manunggal*, diluted either in warm water or coconut oil.]

According to Jose P. Bantug who wrote on the history of medicine in the Philippines, the infusion of *manunggal* by traditional healers, known as *herbolarios*, effectively combats cholera and alleviates stomach ailments when administered promptly. *Manunggal*, also known as bitterwood

(*Quassia indica* [Gaertn.] Noot), is renowned for its diuretic properties. The preparation of *manunggal* oil, which deviates from typical essential oils or plant extracts, involves mixing coconut oil with macerated pieces or scrapings of the *manunggal* bark. This oil is either ingested as a purgative in doses ranging from 30 to 60 grams or applied topically to the abdomen for relief of stomach pains or indigestion (Planta, 2017, p. 107; see also Bantug, 1953, p. 27). In *Plantas medicinales de Filipinas*, Pardo de Tavera describes the chemical components and therapeutic properties of the *manunggal*. He wrote:

El leño y granos continen un principio amargo muy intenso. Del primero se hacen en Filipinas copas y que se llenan de agua durante seís á doce horas, y que,bebída luego, es útil en las enfermedades del estómago, porque contiene los principios amargos que dijimos.

Vrij ha extraído de Las semillas del manungga un 33 por 100 de un aceite amarillo claro, constituído, según Oudermans, por 84 partes de oleína por 16 de palmitina y estearina.

El principio amargo contenido en la raíz, el leño y la corteza, fué descrubierto por Blunse, que lo dío el nombre de samaderina; es una masa blanca, cristalina, foliada, más soluble en el agua que en alcohol, fusible. Los ácidos nítrico, y chlorhídrico la coloran en Amarillo. El ácido sulfúrico forma immediatamente una coloracíon rojo-violácea, que desaperace, depositándose cristales irisados en forma de barbas de pluma (Dujardin Beaumetz y Égasse, 1889).

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En filipinas hacen los curanderos un aceite de manunggal que no tiene nada que ver con el proviene de las semillas. Es simplemente un aceite de coco, en el que han puesto en infusíon raspaduras del leño. Este aceite lo usan como purgante, á la le dosis de 30 á 60 gramos, y en fricciones en los reumatismos y contusiones; asimismo sobre el vientre los cólicos y digestiones lentas. El aceite extraído de los granos se emplea en la India, en fricciones, en el reumatismo.

La deccoción del leño, y aun sus polvos, se dan en las fiebres, en las dispepsias, y, en general, como tónico.

INFUSIÓN:

Raspaduras del leño 200 gramos Agua 500 gramos

Por copitas durante el día, en el cólera, las fiebres, dolores del estómago, diarreas. (Pardo de Tavera, 2000, pp. 273–274; Planta, 2017, pp. 69–70)

[The bark and seeds of the *manunggal* are intensely bitter. In the Philippines, cups are made from its bark and filled with water for six to twelve hours. Drinking the infused water with the aforementioned bitter principles afterwards is effective in treating various stomach disorders.

Vrij⁸ has obtained 33 percent of a light yellow oil from *manunggal* seeds, composed, as noted by Oudermans,⁹ of 84 parts of olein and 16 parts of palmitin and stearin.

Blunse discovered the bitter principle in the roots, seeds, and bark, and named it *samaderina*. It appears as a white, crystalline, foliated mass, more soluble in water than in alcohol, and capable of melting. Nitric and hydrochloric acids impart a yellow color to it. When exposed to sulfuric acid, it immediately turns red-violet, eventually depositing iridescent crystals resembling feathered whiskers after the coloration fades (Dujardin-Beaumetz & Égasse, 1889).¹⁰

In the Philippines, traditional healers produce a type of *manunggal* oil distinct from the oil extracted from the *manunggal* seeds. This preparation involves infusing coconut oil with *manunggal* wood chips. This infused oil is used as a purgative, administered at doses ranging from 30 to 60 grams, and applied externally to the abdomen in colic or

⁸Johan Eliza De Vrij (J. E. De Vrij, 1813–1898), pharmacologist and quinologist, Superintendent of Chemical Researches in Dutch Java and author of *On the Cultivation of Quinine in Java and British India* (1865), translated from Dutch. See Wellcome Trust Corporate Archive, "M0001362: Reproduction of a Portrait of J. E. De Vrij (1813–1898), Dutch Doctor and Pharmaceutical Chemist" (1930); and Rohan Deb Roy, "Fairest of Peruvian Maids: Planting Cinchonas in British India" (2017).

⁹Antoine Corneille Oudemans (1831–1895), chemist and director of the Delft Institute of Technology. See Lewis Pyenson, *Empire of Reason: Exact Sciences in Indonesia*, 1840–1940 (1989).

¹⁰George Octave Dujardin-Beaumetz and Ed. Égasse, *Les plantes médicinales indigènes et exotiques, leurs usages thérapeutiques, pharmaceutiques et industriels* [Native and exotic medicinal plants, their therapeutic, pharmaceutical, and industrial uses] (1889).

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indigestion and with pressure therapy to alleviate rheumatism and contusions. In India, the oil is used topically with pressure therapy for rheumatism.

The decoction of its bark and bark powders are given for fevers, dyspepsia, and, in general, as a tonic.

INFUSION:

Bark scrapings 200 grams
Water 500 grams

In small doses during the day, for cholera, fevers, stomach pains, diarrhea.]

Pardo de Tavera notes that the plants identified and listed in *Plantas medicinales de Filipinas* alongside their respective functions, primarily using Tagalog common names for identification, are all formally included in the pharmacopoeia of India. The specific localities from which these plants were sourced include San Mateo and Angono in Rizal Province and San Miguel, Manila. However, it can also be assumed that Pardo de Tavera also gathered plants from the Cavite area, his mother's hometown.

There are no distinctions as to endemic or imported plants. An example is the local name of the *kasuy* (*Anacardium occidentale* L.), which is a translation of its English name cashew, indicating that *kasuy* is most probably imported (Pardo de Tavera, 2000, p. 282). Apart from Tagalog, other major Philippine languages such as Visayan, Pampango/Pampangan, Ilocano, and Bikol were also included in the listing of local names. Here, attention is drawn to Pardo de Tavera's use of "Pampango" instead of "Kapampangan" to refer to the language

in Pampanga, suggesting that during his time, the standardization or consensus on terminology for Philippine languages had not yet been established. Certain plants, such as *kabatiti* (*Rhamnus wightii* W. and Arn), are classified under Tagalog rather than Ilocano names (Pardo de Tavera, 2000, p. 282), indicating the need for a more thorough examination of the book to ensure optimal utility.

4.4 Maximizing the Benefits of Philippine Medicinal Flora: Practical Guide

Despite the apparent abundance of local medicinal plants in the Philippines, Pardo de Tavera pragmatically acknowledges their scarcity, particularly among physicians in both Manila and provincial areas, unless these plants are officially recognized in European and American pharmacopoeias. Consequently, he emphasizes the importance of actively procuring and maintaining a reliable supply of medicinal plants for future use, especially within families. Stressing proper preservation methods, such as drying in shaded areas, he aimed to prevent putrefaction or fermentation.

Pardo de Tavera identifies Plaza de Binondo¹¹ as a convenient marketplace for purchasing local medicinal plants, with gardeners from nearby towns like Pasay and Singalon[g] regularly offering them for sale and accommodating specific requests. To address potential confusion arising from common plant names, he underscores the necessity of verifying plant descriptions for accuracy. He recommends obtaining flowering specimens to aid in identification and includes the flowering seasons for

¹¹Binondo Plaza is now recognized as Plaza San Lorenzo Ruiz.

each plant in his descriptions. San Mateo and Angono are highlighted as ideal locations for acquiring medicinal plants and learning about their uses from locals and traditional medical healers. However, he cautions that while these healers possess significant knowledge, they may be hesitant to share information, requiring tact and friendliness to gather insights beyond initial encounters.

Here are specific instructions from Pardo de Tavera on maximizing the utilization of local medicinal plants:

- 1. The stem bark is often rich in the active principle, with the outer portion typically containing a higher concentration. Leaves should be harvested at their full development stage, discarding any old, dried, or worm-eaten ones.
- 2. For bark collection, the optimal time is approximately one month before the period of inflorescence when it is most abundant in sap. Flowers should be gathered when they are about halfway expanded, while fruits can be collected when immature (green) or ripe, depending on the desired active principle. Seeds, on the other hand, should always be fully mature before harvesting.
- 3. It is important to note that not all parts of the plant contain the same amount of the active principle. Sometimes, the active principle may be localized in the root or the flower, and different parts of the same plant may contain distinct principles. Therefore, only the specified part should be used for medicinal purposes.
- 4. In the root, the active substance typically resides in the bark, although it may sometimes be found in the parenchyma surrounding the woody tissue, or even within the woody tissue

- itself, as observed in plants such as "rhubarb" and "pareira brava" (*Cissampelos pareira*) or velvet leaf.
- 5. While certain plants derive their therapeutic importance from their wood, leaves, or flowers, there are no specific indications regarding the localization of the active principle in these parts. However, the fruit may have a pericarp consisting of various components like mucilage, starch, sugar, gum, etc., while seeds may contain fatty matter, fixed or essential oils, or alkaloids, as seen in coffee and cacao. Therefore, it is crucial to utilize the part of each plant indicated as applicable to a specific case or condition.

Some of the scientific names featured in *Plantas medicinales de Filipinas*, such as *kabatiti* or luffa squash, which is now recognized as *Colubrina asiatica* (Linn.) Brongn (Pardo de Tavera, 2000, p. 282), require updating. Similarly, the identification of *gugo* or box bean plant as *Entada scandens* Benth (Pardo de Tavera, 2000, p. 303) has been revised to *Entada phaseoloides* (L.) Merr. These scientific names are based on information provided in *Plants of the World Online* (POWO), a digital database curated by the Royal Botanic Gardens, Kew. POWO, aimed at providing comprehensive information on every seed-bearing plant globally by the year 2020, was conceived in March 2017.

The *kabatiti* and *gugo* are just two among the 214 plants listed in *Plantas medicinales de Filipinas* requiring verification of scientific names. Nevertheless, it is worth highlighting that although Pardo de Tavera's scientific classifications may require validation through modern taxonomy, his identification of plant names remains invaluable. Without such classifications, solely relying on local names might hinder the precise

identification of these medicinal plants today. At the same time, while previous studies on Philippine medicinal plants, notably the works of missionaries such as Alcína, Blanco, Santa Maria, and Mercado, included the local names of the medicinal plants they collected, Pardo de Tavera stood out as the sole trained linguist among this group. Consequently, it can be inferred that while earlier records contained local names, Pardo de Tavera's inclusion of such names reflects his intellectual endeavor to utilize linguistics as a tool for examining the origins and relationships between the various ethnolinguistic groups in the Philippines. In this regard, Pardo de Tavera's *Plantas medicinales de Filipinas* is proof of his commitment to uplifting Filipino culture and foster a sense of pride among Filipinos in their own heritage. In the contemporary period, *Plantas medicinales de Filipinas* bridged the gap between tradition and modernity.

4.5 Quintessential T. H. Pardo de Tavera

In *Plantas medicinales de Filipinas*, Pardo de Tavera's dry and incisive humor is evident. He observes how tobacco (*Nicotiana tabacum* L.) smokers often cite examples of heavy drinkers and smokers who seemingly enjoy robust health but may unexpectedly meet their demise in accidents or succumb to sudden illnesses as evidence of tobacco's harmlessness (Pardo de Tavera, 2000, p. 366; Schneider, 1902, p. 162). This is what he wrote:

La costumbre de fumar, que se extiende de día en día, encuentra los hombres como en todas las cosas divididos en dos campos: unos en pro, otros en contra del tabaco.

Ambos partidarios exageran razones. el abuso ocasiona perturbaciones en el aparato digestivo, en el corazón y en los nervios, esto es indudable. También aparece fuera de duda que algunas personas particularmente predespustas, ó con algunos órganos afectados de alguna dolencia, se ven my perjudicadas, no ya del abuso, sino sólo del uso moderado del tabaco. Estos sujetos han servido de arma para los contrarios: los fuertes, los robustos, los que fuman, beben se exeden en todo y mueren de un accidente de camino de hierro ó de una enfermedad aguada que los sorprende en medio de la más floreciente salud sirven de sujeto á los defensores para probar la inocuidad de tal costumbre. (Pardo de Tavera, 1892, p. 366)

[The habit of smoking, which pervades daily life, divides men into two opposing camps: some staunchly in favor, others adamantly against tobacco. Both sides tend to exaggerate their arguments. It is undeniable that excessive tobacco use can lead to disturbances in the digestive system, heart, and nerves. Furthermore, it is evident that certain individuals, particularly those predisposed or with preexisting health conditions, are significantly harmed not just by excessive use, but even by moderate consumption of tobacco. These cases have been wielded as evidence by opponents of smoking. Individuals who, seemingly strong and robust, engage in excesses such as smoking and drinking, only to meet untimely deaths from accidents or serious illnesses despite their apparent flourishing health serve as

arguments for those in favor of tobacco smoking. It falls upon the defenders of smoking to prove the harmlessness of such a habit.]

This suggests Pardo de Tavera's foresight, predating many anti-smoking campaigns of the twenty-first century.

Pardo de Tavera's unwavering dedication to the advancement of the Filipino is evident through his words and actions, making him a towering intellectual figure in Philippine history. As he himself had expressed: "Of all Filipinos, I am the most Filipino. All my writings are for the interest, improvement, and progress of the Filipino people. They are writings which could not be of any interest to the French, Germans, Japanese or any foreigners" (Rodriguez, 1925, pp. 1–2, as cited in Mojares, 2006, p. 219).

5 Conclusion

Much like Blanco's *Flora de Filipinas*, Pardo de Tavera's *Plantas medicinales de Filipinas* warrants thorough scientific evaluation, especially concerning scientific nomenclature, which may need updating to align with modern Linnaean taxonomy. However, the absence of a systematic study of works on Philippine medicinal plants and herbs during the Spanish colonial period and its implications for the works of Alcína, Blanco, and Pardo de Tavera should not diminish their significance. These works serve as invaluable documented records, providing evidence of the medicinal applications of these plants and herbs, albeit primarily based on anecdotal evidence. Despite their

limitations, they remain crucial resources for understanding traditional medicinal practices in the Philippines (Planta, 2017).

Beyond its immediate impact on contemporary knowledge, Pardo de Tavera's work also serves as a valuable window into the precolonial Filipino past. By studying traditional medicinal plants, he provided insights into the sophisticated healthcare systems that had been passed down through generations and predated colonial influence. This glimpse into the local knowledge of precolonial Filipinos offers a holistic understanding of the Philippines' cultural and scientific heritage.

Since the second half of the twentieth century, the increasing popularity and significance of these plant traditions, as documented in the works cited above, have captured the attention of both the medical research community and the biopharmaceutical industry. Beyond the inherent qualities of local plants lies the recognition of their pivotal role in shaping Filipino culture over time. These pivotal moments in Philippine plant research not only underscore the importance of historical studies in modern investigations into phytotherapy but also present an opportunity for interdisciplinary collaboration among researchers. By leveraging local knowledge, this collaboration holds the potential not only to enhance better health and nutrition but also to preserve unique cultural insights, foster national development, and promote individual well-being for all.

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A Grammar Sketch of Standard Thai based on Master's Theses and Doctoral Dissertations on the Thai Language under the Department of Linguistics, University of the Philippines Diliman

Kritsana A. Canilao

Abstract

Thai is a tone language in which each syllable has a distinctive tone. Controlled pitch movement of tones carry contrastive meaning of words. Standard Thai, the official or national language of Thailand, is a variety of Central Thai, one of Thai dialects used mostly in the Bangkok metropolitan area and the Central plains of Thailand. Standard Thai,

a desired or idealized variation of Thai dialects, is used widely throughout the country. The main objective of this paper is to present a grammatical sketch of the Standard Thai used between the 1970s and 1990s based on Thai language and linguistics research under the University of the Philippines Diliman Department of Linguistics (UP Linguistics). The scope of this work includes a description of the cumulative levels of Thai/Standard Thai grammatical hierarchy where the surface structures of phonemes, morphemes, lexical words, phrases, clauses, and sentences were examined. The two dissertations and 14 theses had been scrutinized and summarized into one piece of work as Thai Reference Grammar of the 1970s, 1980s, and 1990s. According to the research materials, the relationship among the various elements of a sentence and among sentences was investigated primarily based on Generative, Transformational Grammar (TG), or Transformational-Generative Grammar (TGG). To discover the underlying representative structures of Thai, the studies adopted the assumption of transformational theory explaining how Thai native speakers can generate and comprehend all possible grammatical sentences. The trends of syntactic construction had likely been changed and/or simplified. Several arguments were raised on the grammatical rules which Thais could apply. The syntactic derivations had been made from the embedding compound and/or complex sentences: noun phrases were derived from the embedding of adjectival clauses/sentences. Moreover, a great number of grammatical and linguistic terms to be used were to be clarified.

1 Introduction

Thai belongs to the Tai language family (Southwestern branch), which is, to some extent, related to languages in India, Myanmar, Laos, northern Vietnam, southern China, and Malay peninsula. Thai has several typological characteristics. It is a tonal language with five contrastive tones; every syllable that receives normal stress processes a definite pitch level (mid, low, or high) or pitch contour (falling or rising). As other varieties of Tai, Thai is monosyllabic, despite a great number of lexical word's compounding whereby the compound functions as one polysyllabic word (Herbert & Milner, 1989). Thai does not apply inflectional morphology to code grammatical information such as number and gender for nouns and verbs. There are no endings, agreements, or affixes to mark grammatical functions, no definite or indefinite articles, and the meaning is defined by word class and word order in sentences. Like most Southeast Asian languages, Thai uses numeral classifiers and applies serial verb constructions. Thai is spoken by the great majority of the population of Thailand. Standard Thai/Siamese is the national/official language of the Kingdom of Thailand. It represents a variety of Central Thai dialect, which is used widely as a lingua franca in most newspapers, radio, and television broadcasts, as well as in schools, universities, and government offices throughout the country. According to Smalley (1994), even though Standard Thai takes on a different level in the

language hierarchy, it is mutually intelligible with other Central Thai varieties.

The studies Thai Language and The Nature and Development of Thai Language, written by royal Thai scholar Phraya Anuman Rajadhon, were first published in 1954 and 1961. During that time, Mary R. Haas's initial work on the The Thai System of Writing (1956) was released. In 1964, the first press of Thai Reference Grammar written by Richard B. Noss for the Foreign Service Institute, U.S. Department of State was posted whereby Thai phonology; morphology; syntax; free lexeme classes: isolatives, substantives, predicatives; and bound lexeme classes: modals, prepositions, conjunctions, postpositions, and sentence particles were analyzed. Since the mid-1960s, a great number of Tai linguistics and comparative Tai studies had been introduced (see Brown, 1965; Gedney, 1989; Gething et al., 1976; Harris and Chamberlain, 1975, and so on). Descriptive studies on Tai/Thai grammatical structure and/or tones have been occasionally discussed due to changes of language use and trends of simplification. A Reference Grammar of Thai by Iwasaki and Ingkaphirom, first published in 2005 and reissued in paperback in 2009, is the first comprehensive grammar of Thai language, written from a functional perspective.

Research studies on Thai language and linguistics were recorded as well at the University of the Philippines Diliman between 1973 and 1991. Sixteen outputs, 14 Master of Arts (MA) theses and two doctoral dissertations, under the advisory of the late professors Ernesto H. Cubar (1929–2021), Ernesto Constantino (1930–2016), Consuelo J. Paz (1933–2022), and Jonathan C. Malicsi (1947–2019), were written

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by 15 Thai graduate scholars¹ under the Department of Linguistics (called Department of Linguistics and Asian languages between 1973 and 1982), College of Social Sciences and Philosophy (or CSSP, since 1983) or College of Arts and Sciences (as addressed on the studies compiled between 1973 and 1983). Most of these scholars were awarded study grants by Thai government. Figure 1 shows the domicile and/or workplace of the 15 Thai students in the different regions of Thailand.



Figure 1. Domicile of the 15 Thai Graduate Students and Their Workplace in Thailand

¹For more background information on the Thai graduate scholars and their studies in the Philippines, see §8 Implications and Recommendations.

The main objective of this paper is to present a grammatical sketch of the Standard Thai used during the 1970s, 1980s, and 1990s based on Thai language and linguistics research under the Department. The scope of this work includes a description of the cumulative levels of Thai/Standard Thai grammatical hierarchy: phoneme, word, phrase, clause, and sentence. The two dissertations and 14 theses being used as the primary data of this grammatical study are chronologically arranged on Tables 1 and 2.

Table 1. Doctoral Dissertations of Thais Under the UP Department of Linguistics

No.	Title	Author	Year of Graduation
1	A Study of Sanskrit Loanwords in Thai and Tagalog	Chinda Ngamsutdi	1983
2	A Grammatical Comparison of Thai and Tagalog	Pearl Wattanakul	1991

Archival data collection was mainly conducted at the Department of Linguistics Library; all hard copies of the unpublished 14 theses and two dissertations were merely cataloged at the Department's library. It should be noted that the materials were, at the same time, duplicated as microforms at the University of the Philippines Library Multimedia Services Room. In addition, the related articles and publications in Thailand were reviewed digitally as well. In the 16 works, one titled "Passivization in Thai" (Ngamsutdi, 1977) was found published in a

Table 2. Graduate Theses of Thais Under the UP Department of Linguistics

No.	Title	Author	Year of Graduation
1	Structure of Modification in Noun Phrases in Thai	Suthipong Sombut	1973
2	Nominal Sentences in Thai	Wissanu Rawangking	1976
3	Causative Sentences in Thai	Duangporn Kumlert	1976
4	Arguments Against Tense in Thai	Suthipon Boonrueng	1977
5	Nominalizations in Thai	Santi Kooratanaweich	1977
6	Passivization in Thai	Chinda Ngamsutdi	1977
7	Interrogative Structures in Thai	Paiboon Anusaen	1977
8	Adverbial Structures in Thai	Nipawan Teepanont	1978
9	Two-Verb Surface Predicates in Thai	Naiyana Phumipruksa	1978
10	A Study of Cases in the Thai Language	Punthip Kerpetkaew	1978
11	Tones Correspondences among Thai Dialects	Sarit Srikhao	1979
12	Further Studies in Morphology and Compounding in Thai	Patariya Thavilpravat	1979
13	Thoog Yang and Standard Thai: A Phonological, Morphological and Lexical Comparison	Samruay Klaichom	1981
14	English Loanwords in Thai	Kanittha Suwanruje	1990

Thai journal (Ngamsutdi, 1978). The percentage of the theses and dissertations that are published in a journal is shown in Figure 2.

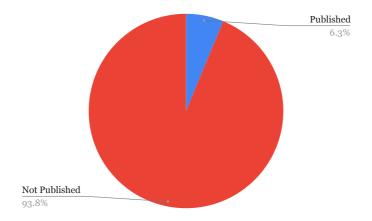


Figure 2. Percentage of the Publication of the Theses and Dissertations on the Thai Language Under UP Department of Linguistics

The subject matters of the Thai language structure described in the theses and dissertations were scrutinized, sketched, and summarized into one piece of work representing a trend of Thai reference grammar in the 1970s, 1980s and 1990s. This study focuses merely on the grammar of Standard Thai, not of other comparative Thai varieties: Northern, Northeastern, and Southern Thai dialects. Languages, namely Sanskrit, English, and Tagalog, compared to Standard Thai in the last three research on loanwords and grammatical comparison are, at the same time, excluded in this study. In addition, the phonetic transcription represented in this paper is based on the International Phonetic Alphabet (IPA), revised to the year 2020, of which some symbols would be slightly different from the ones provided in the theses and dissertations as there

were limitations of the typescript (typewriter's version) in the past period (See §3.1 Phonetic Transcriptions).

This grammatical sketch would contribute to studies of both Thai structure and general linguistics. The output of this paper would, to some extent, help elucidate debating grammatical phenomena and solve several grammatical puzzles posting in present-day use of Thai language. It can be used as a source of grounding material in teaching and learning Thai for both native and non-native Thai teachers and learners, and additionally a valid reference in developing Thai textbooks for foreigners. Moreover, the valid arguments or claims restated in the research can be applied as a guideline to improve the grammatical content and provide the grammatical descriptions of Thai language courses. Finally, the fruitful benefit of this research would certainly expand to comparative studies of Thai grammatical structure through different periods of time as well.

2 The Theses and Dissertations on the Thai Language and Linguistics Under the UP Department of Linguistics

The linguistic works of the Thai language at the University of the Philippines were recorded between the early 1970s and the early 1990s, the time of "The Thai Linguals and More Descriptions" (Badiola, 2022). During this period, of 41 linguistic outputs in total (33 theses and eight dissertations), 14 MA theses and two doctoral dissertations were done, as shown in Figure 3, by Thai scholars, cataloged at the Department of Linguistics Library, University of the Philippines Diliman. According

to Badiola (2022), seven outputs are grammatical description of selected Philippine languages.

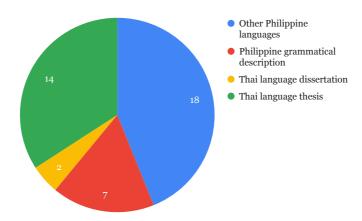


Figure 3. Number of Theses and Dissertations on the Thai Language Vis-⊠-vis All Linguistic Outputs Between 1973 and 1991 (Badiola, 2022)

It is interesting to note that all Thai scholars chose to apply linguistic concepts they had learned to describe and analyze linguistic features of their own language, namely, Standard Thai. Most of their research involves the descriptive analysis of the Thai grammatical structure, of which eight of them were officially advised by Ernesto H. Cubar (Anusaen, 1977; Kooratanaweich, 1977; Kumlert, 1976; Ngamsutdi, 1977; Phumipruksa, 1978; Rawangking, 1976; Sombut, 1973; Thavilpravat, 1979), three by Jonathan C. Malicsi (Boonrueng, 1977; Srikhao, 1979; Teepanont, 1978), and one by Ernesto A. Constantino (Kerpetkeaw, 1978). According to their trend of study, a single grammatical domain was investigated in the early 1970s, of which either syntax or morphology domain was taken into studies. However, some

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"semantic shades" were highlighted for various sentences' interpretation in a number of works as well. A single phonological domain on Thai lexical tones (Srikhao, 1979) was analyzed comparatively for the first time in 1979 under the advisory of Jonathan C. Malicsi.

The two (morphology and syntax, syntax and semantics, phonology and morphology, or phonology and semantics), three (phonology, morphology, and syntax), and four (phonology, morphology, syntax, and semantics) domains were studied between 1981 and 1991. During this period, the grammatical comparisons and loanwords in Thai were analyzed. Three of them were studied under the advisory of Ernesto A. Constantino: two were doctoral dissertations (Ngamsutdi, 1983; Wattanakul, 1991) and one was an MA thesis (Klaichom, 1981). In addition, the last one was an MA thesis (Suwanruje, 1990) under the advisory of Consuelo J. Paz.

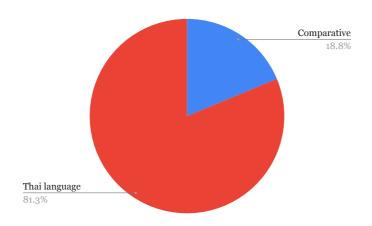


Figure 4. Percentage of Thai Graduated Outputs on the Thai Language Structure and Comparative Linguistics

Figure 4 presents the percentage of the graduated outputs on the Thai language structure and comparative linguistics, while Figure 5 shows the summary of the grammatical domains of the theses and dissertations on the Thai language between the 1970s and the 1990s.

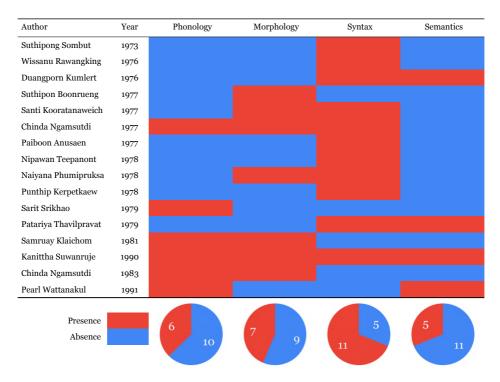


Figure 5. Summary of the Linguistic Domains of the Theses and Dissertations Between the 1970s and the 1990s

The Generative, Transformational Grammar (TG), or Transformational-Generative Grammar (TGG), was significantly applied in all outputs to identify the relationship among the various elements of a sentence and among simple and complex sentences. The graduate scholars adapted the theoretical approach they used in

explaining how the Thai native speakers can generate and comprehend all possible grammatical sentences.

In the early 1970s, the research data came from the authors themselves as they reflected how they use the language as native Thai. Some scholars had a few Thai nationals or Thai alumni under the Department as their informants. A number of Thai scholars under other units in UP served as their informants as well. The trend of the field linguistics was shown, based on the materials, in the late 1970s where more informants of Thais and non-Thais were included by the interview and elicitation.

All theses and dissertations were elucidated in English with phonetic transcription and translation; no Thai scripts provided except in Suwanruje (1990)'s work on "English loanwords in Thai." In addition, the Thai authors used the third personal pronouns in their work referring to themselves.

For the benefits of the linguistic outcomes, the graduate students expected their outputs could provide some clarifications on subject matters, clearer understanding of the Thai language, and some guidelines for further studies of Thai grammar in general.

3 Phonetics and Phonology

All Thai outputs, except one thesis (Srikhao, 1979), provided the phonetic transcription of Standard Thai. Five of the 16 described Thai phonology (Klaichom, 1981; Ngamsutdi, 1983; Srikhao, 1979; Suwanruje, 1990; Wattanakul, 1991), of which four presented the Thai sound system.

3.1 Phonetic Transcriptions

3.1.1 Consonant and Glides

Standard Thai has 21 single consonant phonemes including two glides (see Table 3). All these phonemes can occur in the initial position in the syllable. However, only eight or nine consonant phonemes (see Table 4) can appear in the final position in the syllable.

Table 3. Thai Consonant Phonemes

	Labial	Alveolar	Palatal	Velar	Glottal
Stop					
voiceless unaspirated	p	t	С	k	*?
voiceless aspirated	p^h	t^{h}	C^h	$\mathbf{k}^{\mathtt{h}}$	
voiced	b	d			
Fricative					
voiceless	f	s			h
Nasal	m	n		ŋ	
Lateral		1			
Trill		r			
Glide	W		j		

Table 4. Thai Final Consonant Phonemes

	Labial	Alveolar	Palatal	Velar	Glottal
Stop	p	t		k	?
Nasal	m	n		ŋ	
Glide	W		j		

Note that in the early 1970s and 1980s, the /q/ and /?/ (question mark symbol) were respectively used to represent the voiceless unaspirated glottal stop /?/ due to the limitations of traditional typescript and typo-

graphical convenience. And the phoneme /y/ was used interchangeably to represent the palatal glide /j/. The glottal stop /?/ can be pronounced at the beginning of a word before a vowel as the initial segment of a syllable, e.g., [?aa] 'father's younger sibling,' [?òop] 'to encircle, to embrace;' in the middle of a (borrowed) word between vowels, e.g., [sa?ik] 'to hiccup;' and at the end of a word when no final consonant appears after a short vowel, e.g., [já?] or [já?jé?] 'plenty, a lot of.'

3.1.2 Consonant Clusters

Consonant clusters in Thai occur in the initial position of syllables or words. Some of both unaspirated and aspirated stops may form initial clusters with the lateral /l/, trill /r/, or labial glide /w/. Each of the stops can be followed by the phoneme /l/ or/ /r/, whereas the velar stops /k/ and /kh/ can be followed by the phoneme /w/ (Wattanakul, 1991). Some Thai scholars termed these clusters as "double consonants" as appears in some loanwords in Thai. There are 11 or 12 initial consonant clusters in Standard Thai as shown in Table 5.

Table 5. Thai Initial Consonant Clusters

pr	tr	kr	kw
pl		kl	
$p^{h}r$	$*t^{h}r$	$\mathbf{k}^{ ext{h}}\mathbf{r}$	$\mathrm{k}^{\scriptscriptstyle\mathrm{h}}\mathrm{w}$
$p^{h}l$		$k^{h}l$	

Note that the initial cluster /thr-/ is rare; some Sanskrit loanwords in Thai as /nítthraa/ 'asleep' and /canthraa/ 'moon' use this initial cluster.

3.1.3 Vowels

Standard Thai includes 18 single (simple) vowel phonemes: nine short and nine long vowel counterparts. Three diphthongs (mixed or complex vowels) are applied as well in the Thai syllable or word. This combination of vowels includes a high vowel /i/, /i/, or /u/ and the low central vowel /a/. Tables 6 and 7 show the single vowel phonemes and the three diphthongs respectively.

Table 6. Thai Single Vowels

	Front	Central	Back
High	i, ii	i, ii	u, uu
Mid	e, ee	ə, əə	0, 00
Low	33,3	a, aa	3, 33

Table 7. Thai Diphthongs

	Front	Central	Back
High Mid	ii	ii	uu
Low		aa	
Diphthongs	ia	ia	ua

 $^{^2}$ In Thai morphemes/lexical words, the initial cluster form /thr-/ is pronounced as the phoneme /s-/. According to Bandhumedha (2011), the /thr-/ appeared in some loanwords and has been pronounced as a cluster since the Rattanakosin era (1782–1932).

Regarding the outputs of Thais, beside the three diphthongs shown in Table 7, two, five, or six diphthongs were at the same time identified: two diphthongs /aj/ and /aw/ (Boonrueng, 1977; Kumlert, 1976); five diphthongs /ia/, /ia/, /ua/, /ai/, /au/ (Suwanruje, 1990); and six diphthongs include the three short vowel counterparts /ia?/, /ia?/, and /ua?/ (Wattanakul, 1991).

Besides, it should be noted that according to the transcription represented in the outputs, the vowel symbols /y/ was interchanged with /i/, /x/ or /ae/ with /ae/, /e/ or /E/ with /a/, and /O/ with /a/.

3.1.4 Tones

Tone is a distinctive feature of Thai phonology. Five contrastive tones in Thai consist of three level tones (high, mid, low) and two contour tones (falling/high-falling and rising/low-rising). Three phonological features used for determining tones in Thai are consonant classes (high, mid, low), vowel length (short and long), and syllable types (open/smooth and closed/checked). Table 8 illustrates the five distinctive tones in Thai.

Table 8. Thai Tones

Tone Value	Transliteration	Examples
Mid	no marking	/kʰaa/ 'to be lodged in'
Low	`	/kʰàa/ 'galangal root'
Falling	^	/kʰâa/ 'I, slave, servant'
High	,	/kʰáa/ 'to trade'
Rising	~	/kʰǎa/ 'leg'

3.2 Syllable Structure

A Thai syllable is basically composed of one initial consonant, one vowel, and one tone. An initial consonant cluster and final consonant (a stop, nasal, or glide) can be optionally added. The syllable structure of Thai can then be summarized in notations as follows:

$$C(C)V^{T}(V)(C)$$
 or $C(C)D^{T}(C)$

Note that <C> stands for a consonant including glides, <V> for a vowel, <D> for a diphthong, and <T> for a lexical tone. The symbols enclosed in the parentheses may or may not occur.

Two syllable types stated in §3.1.4 are open/smooth and closed/checked syllables. Open/smooth syllables are syllables ending with long vowels, glides, and nasal; Closed/checked syllables are syllables ending with a stop consonant /p, t, k/. In spite of the types of syllables categorized, Klaichom (1981) elaborated a neutral syllable as an unstressed syllable consisting of the vowel /i/, /e/, and / ϵ / (/X/) with a neutral tone in her work.

The following are examples of syllable structure in Thai.

CV^T / CD^T	/pâa/	'aunt'	/mia/	'wife'
CV^TC / CD^TC	/câaŋ/	'to hire'	/pìak/	'wet'
CCV^T / CCD^T	/klâa/	'brave'	/klɨa/	'salt'
CCV^TC / CCD^TC	/pruŋ/	'to flavor, to	/krùat/	'gravel,
	_	cook'		pebble'

4 Word Formation

According to Thavilpravat (1979), Thai word formation can be divided into three main groups: compound, complex, and reduplicated words.

4.1 Compound Words

Compounding is very common in Thai. A Thai compound word takes two or more free morphemes to create a new word. Compounds in Thai are either endocentric or exocentric. An endocentric compound indicates a subtype of the concept denoted by its head (the leftmost component); in other words, each component contributes by its form to the meaning of the whole word. An exocentric compound, by contrast, appears to lack a head and the meaning of each component does not denote the whole word literally; that is to say that the word's meaning from its parts is unpredictable. In Thai, compounds can be formed as verbs, nouns, adjectives, and adverbs, as follows.

4.1.1 Compounding Resulting in Verbs

Compound verbs can be either transitive or intransitive. Most compound verbs have a verb as the first element. However, they can be formed by a noun and a verb and a preposition and a noun.

Verb + Verb (Coordinate Compound) This type of compound consists of two verbs in concatenation without a noun in between (Phumipruksa, 1978). In other words, they differ from verb serialization in Thai where a noun insertion between verbs is common. According to Klaichom (1981), the two constituents of this compound typically come from two

different Thai dialects, of which meanings and syntactic functions are the same (synonymous compound).

- (1) /chia faŋ/ 'to obey' /chia/ 'to believe' + /faŋ/ 'to listen'
- (2) /tìt taam/ 'to follow'
 /tìt/ 'to adjoin' + /taam/ 'to follow'
- (3) /sŭun hâaj/ 'lost, to disappear' /sŭun/ 'lost, to disappear' (Southern Thai) + /hâaj/ 'lost, to disappear' (Central Thai)
- (4) /?òɔn pʰlia/ 'to feel exhausted' /?òɔn/ 'exhausted' (Northern Thai) + /pʰlia/ 'exhausted' (Central Thai)

Verb + Noun This type of compound is related to the following structures: verb + direct object, verb + locative/directional phrases, and verb + adverbial phrase.

- (1) /?òɔk kamlaŋ/ 'to do physical exercise' /?òɔk/ 'to put forth' + /kamlaŋ/ 'strength'
- (2) /?òɔk nâa/ 'to take the lead' /?òɔk/ 'to put forth' + /nâa/ 'front, face'
- (3) /khâo thâa/ 'to make sense' /khâo/ 'to enter' + /thâa/ 'posture'

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Verb + Preposition This type of intransitive compound usually forms a non-literal meaning of words, which are typically restricted to a particular context. As a result, this word formation is not considered as a constituent of a common clause or sentence which its prepositional phrase normally consists of a preposition and nominal object.

- (1) /pen klaaŋ/ 'being neutral' /pen/ 'to be' + /klaaŋ/ 'middle'
- (2) /kʰâo nôɔk ?òɔk nai/ 'to be on intimate terms with someone' (/kʰâo/ 'to enter' + /nôɔk/ 'outside') + (/?òɔk/ 'to depart or exit' + /nai/ 'in, inside')

Noun + Verb A noun and verb compound resulting in a verb is rare in Thai. This type of compound typically contains a body-part noun as the first component, e.g., /hǔa/ 'head,' /cai/ 'heart', /nâa/ 'face,' followed by a descriptive verb (adjective in English), e.g., /?òɔn/ 'soft,' /dii/ 'good,' /nǎa/ 'thick'.

- (1) /hŭa sĭa/ 'to be irritated' /hŭa/ 'head' + descriptive verb /sĭa/ 'to be broken, spoiled'
- (2) /nâa mɨit/ 'to faint'
 /nâa/ 'face' + descriptive verb /mɨit/ 'to get/turn dark'

Preposition + Noun This type of compound can be either transitive or intransitive. The literal meaning of each component is related to the implicated compound.

- (1) /nôɔk cai/ 'unfaithful' /nôɔk/ 'outside' + /cai/ 'heart'
- (2) /nôɔk kʰôɔk/ 'to be opposed to' /nôɔk/ 'outside' + /kʰôɔk/ 'stall for an animal'

4.1.2 Compounding Resulting in Nouns

Noun + Noun In this formation, the most common first noun is an object or term, whereas the second one functions as attributive in nature: source/locative, possessive-locative, possessive, instrumental-reservational, feature, object, agent, and time. According to Wattanakul (1991), this type of compound includes two root words, of which their meanings are the same (couplet).

- (1) /náam thalee/ 'sea water' /náam/ 'water' + /thalee/ 'sea'
- (2) /sɨa sàat/ 'mat' /sɨa/ 'mat' (Central Thai) + /sàat/ 'mat' (Northern, Northeastern, Southern Thai)

Noun + Verb When a verb follows a noun in a compound, it indicates the nature of the noun: purpose, characteristic or kind, and/or action. It should be noted, in some cases as in the compound verbs' noun-verb formation, that these compounds can be considered as a clause where the noun functions as the subject and the verb as the predicate.

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- (1) /plaa khem/ 'salted fish' /plaa/ 'fish' + descriptive verb /khem/ 'to be salty'
- (2) /khài dεεη/ 'egg yolk'/khài/ 'egg' + descriptive verb /dεεη/ 'to be red'

Noun + Preposition This type of compound indicates an object and its spatial relationships, i.e., direction, location, or place. The structure of this compound is different to a prepositional phrase where a noun would follow a preposition.

- (1) /khɔ̃ɔŋ nɔ̂ɔk/ 'imported product' /khɔ̃ɔŋ/ 'things' + /nɔ̂ɔk/ 'outside'
- (2) /chán bon/ 'upstairs, top layer' /chán/ 'level' + /bon/ 'on, up'

Verb + Verb In Thai, some specific terms can be formed by two semantic-related verbs. In many cases, a combination of two individual verbs forms an address noun.

- (1) /tôm jam/ 'a kind of Thai spicy soup' /tôm/ 'to boil' + /jam/ 'to mix things/ingredients together'
- (2) /hòɔ mòk/ 'steamed curry in banana leaves' /hòɔ/ 'to wrap' + /mòk/ 'to bury'

4.1.3 Compounding Resulting in Adjectives

Compound adjectives usually include a noun and an adjective. However, they can be formed by a verb and a noun as well. The structure of a noun and an adjective, in many cases, indicates personal characteristics, whereas the one of an adjective and a noun defines physical or emotional

state. A component of these compounds is usually a body-part noun. Regarding the Thai morphological structure, a compound adjective usually follows a content noun identifying a state or characteristics. Note that this compound can be categorized as a stative verb addressed after a nominal subject, pronoun, or proper noun.

Noun + Adjective

- (1) /cai dii/ 'kind' /cai/ 'heart' + /dii/ 'good'
- (2) /hǔa dɨi/ 'stubborn' /hǔa/ 'head' + /dɨi/ 'stubborn'

Adjective + Noun

- (1) /nɔʻɔj cai/ 'to feel slighted' /nɔʻɔj/ 'small' + /cai/ 'heart'
- (2) /lăaj cai/ 'being a player' /lăaj/ 'many' + /cai/ 'heart'

Verb + Noun

- (1) /pʰǎo kʰŏn/ 'very close' /pʰǎo/ 'to burn' + /kʰŏn/ 'hair'
- (2) /dəən din/ 'ordinary' /dəən/ 'to walk' + /din/ 'soil, ground'

4.1.4 Compounding Resulting in Adverbs

Compound adverbs can be formed by a verb and a noun, a noun and a verb, or a preposition and a noun. This compound is formed to modify

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or qualify an adjective, verb, or adverb expressing a relation of place, time, circumstance, manner, cause, and degree.

Verb + Noun

(1) /náp kâaw/ 'carefully' /náp/ 'to count' + /kâaw/ 'step'

Noun + Verb

(1) /kʰɔɔ tòk/ 'sadly' /kʰɔɔ/ 'neck' + /tòk/ 'fall'

Preposition + Noun

(1) /nôɔk nâa/ 'overdo' /nôɔk/ 'outside' + /nâa/ 'face'

4.2 Complex Words (Derived Compound Words)

A complex word is mainly composed of a root or base and a bound morpheme or affix, namely, prefix and suffix in Thai. The infixation (see §4.2.5) is not productive in Thai language. However, compound verbs, adjectives, and adverbs can be affixed to form derived compound words (Wattanakul, 1991).

4.2.1 Nominalizing Prefixes

Both /kaan/ and /khwaam/ can be either free or bound morphemes. /kaan-/ can function as both a noun prefix forming a common noun indicating activity, work, occupation, matter, and affair, or suffix to Sanskrit root words. It can be prefixed to a verb, transforming the verb

into a gerund noun which indicates action as well. /khwaam-/ can be a verb or an adjective prefix indicating state, condition, or quality as -ness in English. In other words, /khwaam-/ forms the abstract noun in Thai. In addition, the /kaan-/ and /khwaam-/ prefixes can be attached to a verb phrase to create a noun.

- (1) /kaan ŋaan/ 'work' /kaan/ 'matter of' + /ŋaan/ 'work'
- (2) /kaan miaŋ/ 'politics' /kaan/ 'matter of' + /miaŋ/ 'nation, city'
- (3) /kaan noon/ 'sleeping' /kaan/ 'action of (doing what the verb denotes)' + /noon/ 'to sleep'
- (4) /khwaam dii/ 'goodness' /khwaam/ 'a state of' + /dii/ 'good'
- (5) /khwaam rúu/ 'knowledge' /khwaam/ 'a state of' + /rúu/ 'to know'
- (6) /khwaam pen yùu/ 'living, daily lives' /khwaam/ 'a state of' + /pen/ 'to be' + /yùu/ 'to be, to live'

4.2.2 Classifying Prefixes and Suffixes

Classifying prefixes and suffixes indicate a class or category of people or things having some property or attribute in common. Words in this class are composed of meaningful bound morphemes: prefix + base and base + suffix.

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Prefix + Base

- (1) /nák/ denotes an expert, a votary, or an agent as the suffix -er in English.
 - a) /nák-rian/ 'student'/rian/ 'to study'
 - b) /nák-muaj/ 'boxer' /muaj/ 'boxing'
 - c) /nák-sìip/ 'detective' /sìip/ 'to detect'
 - d) /nák-dontrii/ 'musician' /dontrii/ 'music'
- (2) /kʰon/, /cʰaaw/, or /pʰûu/ denotes an inhabitant, a human, a person/people, or a man/woman.
 - a) /kʰon-kʰrua/ 'a cook' /kʰrua/ 'kitchen'
 - b) /cʰaaw-kɔ̂?/ 'islander' /kɔ̂?/ 'island'
 - c) /pʰûu-jǐŋ/ 'girl, woman' /jǐŋ/ 'female'

Base + Suffix

- (1) /kɔɔn/ denotes a worker, a laborer, a doer, or an agent.
 - a) /kasì-kəən/ 'agriculturist' /kasì-/ 'agriculture'
 - b) /phíthii-koon/ 'master of ceremony' /phíthii/ 'ceremony'
- (2) /phâap/ denotes a state or a condition.
 - a) /sěerii-pʰâap/ 'freedom, liberty' /sěerii/ 'freedom, liberty'
 - b) /khun-na-phâap/ 'quality' /khun(-na)/ 'goodness, advantage'

4.2.3 Modifying Prefixes and Suffixes

Modifying prefixes and suffixes modify the meaning of the base.

Prefixes

- (1) /à/ means 'not'.
 - a) /?à-tʰam/ 'unjust, unfair'/tʰam/ 'truth, dharma'
 - b) /?à-kàtanjuu/ 'ungrateful' /kàtanjuu/ 'gratitude, grateful'
- (2) /?ànú/ means 'lesser, minor, or lower'.
 - a) /?ànú-rák/ 'to conserve'/rák/ 'to keep'
 - b) /?ànú-kammakaan/ 'subcommittee' /kammakaan/ 'committee'

Suffixes

- (1) /?èt/ refers to 'one'.
 - a) /sìp-?èt/ 'eleven' /sìp/ 'ten'
 - b) /pʰan-ʔèt/ 'one thousand and one' /pʰan/ 'thousand'
- (2) /khom/ is a suffix for the 31-day months.
 - a) /miinaa-khom/ 'March' /miin/ 'fish'
 - b) /sǐŋhǎa-kʰom/ 'August' /sǐŋhǎa/ 'lion'

4.2.4 Adverbial Prefix

This type of complex words includes the morpheme /jàaŋ/ 'in the manner of' in the first component followed by a verb or adjective indicating verbal manner in a clause or sentence.

- (1) /jàaŋ rew/ 'quickly'
 /jàaŋ/ 'in the manner of' + /rew/ 'quick'
- (2) /jàaŋ ŋaam/ 'beautifully, successfully' /jàaŋ/ 'in the manner of' + /ŋaam/ 'beautiful'

4.2.5 Sublexemic Prefixes and Infixes

According to Noss (1964, as cited in Thavilpravat, 1979), sublexemic infixes are more widely distributed in Standard Thai than prefixes.

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Prefixes

- (1) Consonant phoneme prefixes /p-/, /p^h-/, /t-/, /k-/, /k^h-/ are formed with /r/, /l/, /w/ as syllable base's initial consonants, namely, clusters.
 - a) /p-lùk/ 'to wake (someone) up' /p-/ + /lúk/ 'to get up'
 - b) /k-rɔ̂ɔp/ 'to make a frame' /k-/ + /rɔ̂ɔp/ 'a cycle'
 - c) /kʰ-wǎaŋ/ 'to obstruct'
 /kʰ-/ + /waaŋ/ 'to put/drop down'
- (2) Bound morpheme prefixes /kam-/, /cha-/, /tà-/, /thà-/, /thá-/, /nâa-/, /phà-/, /ban-/ (/bam-/, /baŋ-/), /prà-/, /pà-/, /krà-/, /kà-/, /sà-/, /săm-/
 - a) /nâa-rák/ 'to be lovable'/nâa-/ + /rák/ 'to love'
 - b) /pʰà-sǎan/ 'to blend' /pʰà-/ + /sǎan/ 'to weave'
 - c) /baŋ-kháp/ 'to force' /baŋ-/ + /kʰáp/ 'tight'

Infixes The infixes applied in Thai are mostly found in Khmer loanwords as follows:

- (1) Consonant phoneme infix /-m-/
 - a) /tʰa<m>laaj/ 'to ruin' /tʰálaaj/ 'to destroy'
 - b) /ca<m>rəən/ 'to be successful' /carəən/ 'to prosper, flourish'

- (2) Bound morpheme infixes /-am-/, /-an-/, /-aŋ-/, /-ab-/, /-al-/, /-aw-/, /-aj-/, /-amn-/, /-amr-/
 - a) /t<am>raa/ 'textbook'/traa/ 'stamp, seal'
 - b) /r<ab>ìap/ 'discipline, order'/rîap/ 'to be in order, to be smooth'
 - c) /c<amn>àaj/ 'to distribute' /càaj/ 'to pay, spend'
 - d) /s<al>àk/ 'to carve' /sàk/ 'to tattoo'

4.3 Reduplicated Words

Reduplication is a repetition of a base or morpheme to form a lexical word. According to Wattanakul (1991), two categories of Thai reduplication can be formed: partial and total reduplication. In partial reduplication, the initial consonant or all consonants and the tone of the root word are repeated with a different vowel. Thai reduplication adds various meanings to a word, such as plurality, continuity (series of action), generality, emphasis, approximation, intensity, and distributivity. In addition, it can include onomatopoeic words to indicate some successive sounds or circumstances. Furthermore, reduplication in Thai is found as well in derived and compound words, which in some cases, initial consonant phonemes are repeated for rhyming the compounds. This formation may include repeated syllables with no meaning when isolated.

(1) /ruajrəəj/ 'rich' /ruaj/ 'rich'

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- (2) /dèk-dèk/ 'children' /dèk/ 'child'
- (3) /tùp-tùp/ 'to pound repeatedly' (sound of heart beating) /tùp/ 'to pound'
- (4) /kháaw-kháaw/ 'very white' /kháaw/ 'white'
- (5) /pʰaŋâap-pʰaŋâap/ 'gasping for breath, fatally' /pʰaŋâap/ 'gasping for breath'
- (6) /phûuroŋ phûuráaj/ 'bandit' /phûuráaj/ 'bandit'
- (7) /rótfoŋ rótfai/ 'train' /rótfai/ 'train'

5 Phrase and Clause Structure

5.1 Structures of Modification in Noun Phrases

A noun phrase is composed of a head noun and one modifier or a sequence of modifiers. Several types of modifiers can be formed in various ways. In Thai, modifiers follow a head noun (the leftmost head) at all times. The four structures of modification in noun phrases stated in Sombut's (1973) work are as follows.

Head Noun + One Modifier

(1) náam jen (adjective modifier) water cold 'cold water'

(noun modifier) (2)báan máai house wood 'wooden house' (3) thànon (săaj) níi (demonstrative modifier) road (route) this 'this road' daaw hâa duan (numeral modifier) (4)star five sphere 'five stars' (5) khon khon thîi săam (numeral modifier) person body at three 'the third person' (quantifier modifier) (6) nók lǎai

'many birds'

(7) pìik khɔ̃ɔŋ nók (genitive [possessive] modifier) wing of bird

bird many body

'bird's wing'

(8) k^h on t^h îi pen k^h ruu (noun modified by a relative clause) person who be teacher 'the person who is a teacher'

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Head Noun + Two Modifiers

- noun + adjective + possessive phrase kaafεε róon khoon khun coffee hot of you 'your hot coffee'
- (2) noun + (noun classifier + ordinal numeral) + (noun classifier + demonstrative)

 năŋ-sɨɨ lêm tʰîi-sǎam lêm nán

 book classifier third classifier demonstrative

 'that third book'

Head Noun + Three Modifiers

- (1) noun + adjective + classifier + demonstrative bâan máai sĭi dεεη lǎŋ nán house wood color red classifier that 'that red wooden house'
- (2) noun + adjective + (number + classifier) + demonstrative khon sŭaj săam khon nán person beautiful three classifier that 'those three beautiful persons'

Head Noun + Four Modifiers

(1) noun + adjective + possessive phrase + classifier + demonstrative rəɔŋtʰáao nǎŋ sĭi-náamtaan kʰɔɔŋ kʰun kʰûu níi shoes leather brown of you pair this 'this pair of brown leather shoes of yours'

5.2 Two-Verb Predicates in Thai

Regarding Phumipruksa (1978), two-verb constructions in Thai are classified into three main types: (a) two-verb constructions in which one is a modal verb; (b) two-verb constructions in which one is a completive verb; and (c) two-verb constructions of two free verbal morphemes.

Modal Verb + Main Verb In modal constructions, the modals, which are the verbs in the first position, function as auxiliaries while the non-modals that follow are the main verbs. Modal verbs in Thai include abilitatives, desideratives, emphatics, repetitives, causatives, and passives. Modal verbs in Thai can carry new information in sentences.

- (1) abilitative
 - k^hǎo **dâai** noon mɨak^hɨɨn rɨɨ plàao s/he **be able to** sleep last night question particle (yes/no) 'Was s/he able to sleep last night?'
- (2) desiderative
 wiirá jàak faŋ pʰleeŋ sǎakon
 Weera **would like to** listen song international
 'Weera would like to listen to international songs.'
- (3) causative

 k^hruu **hâi**nákrian lóp kradaan
 teacher **have someone do something** student erase board
 'The teacher had the student erase the board.'

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(4) passive
nákrian **t**^h**ùuk** k^hruu tii
student **passive marker** teacher hit
'The student was hit by the teacher.'

Completive Verb/Verb Phrase + Completive Verb Completive verbs are the verbs that function as predicates occurring at the end of the sentence or after the verb phrase. A completive verb can appear as a single main verb of a sentence or as a main verb in the two-verb construction.

- (1) ŋaan sèt léεw work finish already'The work is already done.'
- (2) m

 a wâain

 am pen

 dog swim know how to do something

 'The dog knows how to swim.'

Two-verb Construction of Free Verbal Morphemes This type of verb construction includes two free verbal morphemes and there might or might not be a noun between these morphemes: $V_1(N)V_2$. The first verb component usually gives a more specific meaning than the second component. However, the second component commonly functions as the main verb of the sentence. The two verbs can be performed by a single or two subjects, as follows.

- (1) khǎo síi khanôm kin s/he buy snack eat
 'S/he bought snacks to eat.'
- (2) mεεw kàt nǔu taajcat bite rat die'The cat bit the rat to death.'

Regarding the sentence illustrated above, /mɛɛw/ 'cat' is the subject of the first verb /kàt/ 'bite,' whereas /nŭu/ 'rat, mouse' is its direct object. /nŭu/ 'rat, mouse' is, at the same time, the subject of the second verb /taaj/ 'to die.'

Although the two-verb components are free morphemes and carry their own meaning in the sentences, the first verb may denote an event which happens and finishes before the second one, i.e., a sequence of actions. It may also denote an event which happens at the same time as another verb, i.e., simultaneous actions. Or it may indicate the purpose, direction, or manner of another verb.

- (3) dèk dèk kⁿìi càkkrajaan pai tàlàat children ride bicycle go market 'The children rode the bicycle to (go to) the market.'
- (4) nók bin hǎa ?aahǎan bird fly look for food 'The bird flew to look for food.'
- (5) nákrian kamlaŋ **k**h**ian** còtmǎaj **tòɔp** ph**i**an student progressive aspect **write** letter **answer** friend 'The student is writing a letter responding (to his/her) friend.'

5.3 Aspect As Arguments Against Tense in Thai

Boonrueng (1977) reexamined the traditional analysis of "tense markers" in Thai, such as /kamlaŋ/, /jaŋ/, /cà/, /pʰə̂ŋ (cà)/, /kʰəəj/, /jùu/, /dâai/, /lέεw/, and /maa/. He argues these morphemes are not tense markers but rather aspect indicators, completive verbs, or directional particles indicating the time sequence in Thai verbal phrases or sentences.

Thai aspects/aspect markers include pre-verbal and post-verbal aspects according to their position in relation to the main verb or verb phrase.

Pre-verbal Aspects The Thai pre-verbal aspects include progressive aspect /kamlaŋ/, durative aspect /jaŋ/, contemplative aspect /cà/, recent perfective /pʰə̂ŋ (cà)/, and repetitive aspect /kʰəəj/, which are illustrated as follows.

- (1) raw **kamlan** tham-naan bâan we **progressive** work house 'We are doing household chores.'
- (2) lûuk lûuk **jaŋ** lék mâak kids **durative** small very much 'The children are still very young.'
- (3) c^hai **cà** pràkùat róɔŋp^hleeŋ p^hrûŋníi Chai **contemplative** join competition sing tomorrow 'Chai will join the singing competition tomorrow.'
- (4) the phân (cà) maa-thin roonrian diawníi s/he recent perfective arrive school now 'S/he has just arrived at school now.'

Post-verbal Aspects The Thai post-verbal aspects consist of intensive aspect /jùu/ and perfective aspect /lέεw/, which are illustrated as follows.

- (1) taa ?òɔkkamlaŋ jùu mother's father exercise intensive 'The grandfather is doing exercises (now).'
- (2) p^hŏm jùu mánílaa lăaj pii léεw
 I stay/live Manila several year perfective
 'I have been staying in Manila for several years.'

Note that two or more aspect markers in Thai may co-occur in the verbal phrases or sentences. It is possible, with some rearrangeable positions or patterns in the sentences, that their grammatical function be transformed as well, such as $/l\epsilon\epsilon w/$ from being an aspect marker to an adverb. Their meaning and function vary depending on their syntactic structure elucidating the different contextual interpretation.

5.4 Cases of Thai

Cases are defined as nouns or pronouns which are related to the predicate of a simple sentence. Regarding Kerpetkeaw's (1978) output, 15 cases, namely agentive, objective, associative, source, goal, identified, identifier, possessed, possessor, existential, stative, benefactive, instrumental, locative, and time, are identified based on some syntactic criteria, i.e.,

the use of prepositions, positions, and functions of the cases in the surface structure of the simple sentence. Nine of 15 cases can co-occur in two to five cases in transitive sentences, as illustrated below.

Two Cases Two cases in Thai active sentences include an agentive and objective nouns or pronouns. The agent and object co-occur respectively before and after the verb.

- (1) khruu sɔ̃ən khanítsàat teacher teach Mathematics 'The teacher teaches Mathematics.'
- (2) mêε hǔŋ kʰâaw mother cook rice 'The mother cooks rice.'

The agentive case indicates the doer or instigator of the action expressed by an action verb. The agentive case can be positioned in both active and passive sentences. However, it functions consistently as a subject in the active clause or sentence but not in the passive one where the agent is likely to be dropped. The objective case or object occurs merely with transitive verbs. It indicates the thing affected by the action of the verb. The object occurs immediately after the verb in a transitive clause or sentence.

Three Cases Besides the agent and object, any one of the nine cases may occur in Thai transitive sentences to form sets of three cases, such as source, goal, locative, time, benefactive, instrumental, and associative. The different sets of three cases are illustrated as follows.

- (1) rao jɨɨm năŋsɨi càak hɔɔŋsamùt

 I/we borrow book from library (source)

 'I/we borrowed the book from the library.'
- (2) phôo si rót hâi lûuksǎaw father buy car for daughter (benefactive) 'The father bought a car for (his) daughter.'

Four Cases Besides the agent and object, any two of the other cases may occur with the transitive verb to form different sets of four cases, as follows.

- (1) chăn sòn cotmăaj càak fîlípin thin

 I send letter from Philippines (source) to
 nóonsăaw
 younger sister (goal)

 'I sent the letter from the Philippines to (my) younger sister.'
- (2) maanii khaaj nansii thii roonrian miawaan

 Manee sell book at school (locative) yesterday (time)

 'Manee sold the book at the school yesterday.'

Five Cases Besides the agent and object, any three of the other cases may occur with the transitive verb to form several sets of five cases, as follows.

- (1) săamii sòŋ sîap¹âa càak jîipùn hâi c¹ăn husband send clothes from Japan (source) to/for I (goal) (dooj) t¹aaŋ k¹rîaŋbin
 (by) way airplane (instrumental)
 '(My) husband sent the clothes from Japan to me by airplane.'
- (2) pôm kàp pǐm hǔŋ khâaw dûaj môo

 Pom with Pim (associative) cooked rice with pot

 faifáa sămràp mêε

 electric (instrumental) for mother (benefactive)

 'Pom and Pim cooked rice for (their) mother by using the electric pot.'

Cases in the Passive Sentences The same sets of cases which occur in active sentences can, at the same time, be placed in passive sentences. However, some functions of the cases are significantly changed as the different structure to form the passive sentences is made. That is to say, the object, being the subject in passive sentences, is positioned at the beginning of the sentence followed by the passive markers /thùuk/3 or /doon/.⁴ In addition, the agent occurs immediately after the passive

³/thùuk/ has several meanings and different functions in Thai grammar: 'to be cheap in price (descriptive verb)', 'to be correct (adverb)', or 'to touch or come in contact with (action verb).'

⁴/doon/'s literal and informal meaning is 'to touch or come in contact with.'

marker followed by the verb. It should be noted that in the passive sentences, the agent may be dropped.

- (1) **sĭa** thùuk **naaj-phraan** jiŋ dûaj **piin tiger** passive marker **hunter** shoot by **gun** 'The tiger was shot by the hunter using the gun.'
- (2) sia thùuk naaj-phraan jin tiger passive marker hunter shoot 'The tiger was shot by the hunter.'
- (3) **sia** thùuk jiŋ **tiger** passive marker shoot 'The tiger was shot.'

6 Summary

The graduate theses and doctoral dissertations on the grammatical structures of Standard Thai were compiled at UP Department of Linguistics between the early 1970s and 1990s. As seen in Figure 4, 81.25% of the scholars studied the grammar of Standard Thai, while 18.75% did a grammatical comparison of Thai dialects and foreign languages: Sanskrit, English, and Tagalog. The linguistic domain that showed a favorable trend of their linguistic interest, as seen in Figure 5, was syntax. Regarding their works, semantics was another domain they tried to shed light on: how the various structures they analyzed took part in the sentences' generalizations and interpretations.

The morphological forms of different types of words were primarily investigated during that period as well. Compounding formed by the free morphemes are common among their works; the various parts

of speech can be placed together to create the new compounds. The great number of complex words affixed with the bound morphemes are mostly borrowed words from Pali, Sanskrit, and Khmer. Both partial and total Thai reduplications add the various meanings to a word. Some reduplicated words may be used to lessen the degree of property's intensity, e.g., /dɛɛŋdɛɛŋ/ 'reddish, slightly red'.

The various types and forms of nominal and verbal phrases were scrutinized, while the simple clause constructions were described. The structure of verb predicates and the prepositional phrase forms shed light on the 15 cases and seven pre-verbal and post-verbal aspects, where the tense markers are not widely applied.

The phonological analyses were the least of the Thais' outputs, and among the few, the Standard Thai tones were taken into comparison with the three regional Thai dialects, and Thai's phonological structure were at the same time compared to that of Tagalog.

7 Discussion

The study of the 16 Thai linguistic theses and dissertations not only provides the primary picture and frame of the Thai grammar dated back between 1970s and 1990s; the linguistic trends in the Philippines during that time are, at the same time, observed. The traditional or structuralist grammar was slightly replaced by the transformational theory, namely, Generative, Transformational grammar (TG) and the Transformational Generative Grammar (TGG), where the underlying set of rules of language production and sentence formation was highlighted. In the early 1970s and 1980s, the linguistic outputs relied on

the traditional grammar presenting the explicit descriptions and classifications of specific Thai structures; the surface and deep structures were mentioned in the later years, however, not many works went through a series of transformations.

The Thai grammatical structures have not changed significantly since the 1970s. Thais practice most of the valid grammatical structures as sketched in this work, especially the serial verb constructions and passive forms. However, the lexical words presented in some outputs are not widely applied in the present days: the pronoun /loon/ 'you, s/he' becomes not polite or unrespectful as some speakers use it for irony. Another example is the use of the benefactive /sămràp/ 'for, to' in clauses or sentences in general. In many cases, Thais replace this word with /hâi/ 'to give, for, to' in both formal and informal statements. For example, /sămràp/ 'for, to' in /chăn càaj ŋən sămràp khun/ 'I spent money for you' is usually not common these days. Instead, /chăn càaj ŋən hâi khun/ is widely used. In addition, the compounds created in the past are mostly endocentric; a great number of exocentric compounds have been created at present to be used in various contexts. Moreover, Thai words are mostly formed by the derivation process, not by inflection. Furthermore, Thais are likely to simplify the way they use the language by shortening or dropping a segment, morpheme, or lexicon in phrases, clauses, and/or sentences, especially in speech communication. Personal pronouns, classifiers, and the possessive modifier /khɔ̃ɔŋ/ 'of' used in possessive phrases, e.g., /pìik (khɔ̃ɔŋ) nók/ 'bird's wings' (lit. 'wing [of] bird'), are, among others, dropped in the Thai structure.

Lastly, affixation derived in complex words (see §4.2) has been debated whether it is a common feature of Thai, of which native root words

are monosyllabic. It may be noted that affixes, especially bound morphemes, are mostly found in words borrowed from Khmer or Sanskrit. Regarding the sublexemic prefixes addressed in §4.2.5, affixes are possibly formed in native-like Thai monosyllabic words as part of the initial clusters: /p-lùk/ 'to wake (someone) up' (/p-/ + /lúk/ 'to get up'), /k-rɔ̂ɔp/ 'to make a frame' (/k-/ + /rɔ̂ɔp / 'a cycle'). Based on the typical formation of these complex words, the meanings of both root and derived words are likely to be related and categorized in the same semantic direction/domain. It is interesting to know whether this is a coincidence, true, or borrowed syntactic-semantic cluster formation.

8 Implications and Recommendations

The number of Thais studying in the Philippines grew dramatically between the 1960s and early 1970s after, I believe, the late King Bhumibol Adulyadej and Queen Sirikit paid a state visit to the Philippines in 1963 at the invitation of His Excellency Diosdado Macapagal, President of the Philippines, that time. The visit marked a major milestone in the strengthening of friendly relations between Thailand and the Philippines (Ratanaprukse & Jayanama, 2009), which continues to this day. Their Majesties visited the International Rice Research Institute (IRRI), the Agricultural College of the University of the Philippines Los Baños. His Majesty received an honorary doctorate in Law from the University of the Philippines Diliman and Her Majesty an honorary doctorate in Arts from Centro Escolar University. At the same time, the Higher Education sector had been reformed in Thailand since the late 1960s; the Thai government through the Ministry of Education, among others,

provided scholarships to Thai teachers and professors to study abroad to experience and apply new or different disciplines obtained from the foreign academic institutions to Thai academe in Thailand. Among other colleges and universities in the Philippines, a great number of the Thais pursued their graduate studies at the University of the Philippines (UP). Many of them went to UP Los Baños (UPLB) for a graduate degree in agriculture and/or agriculture-related fields. Many resided as well in UP Diliman (UPD) studying business and commerce, community development, economics, engineering (industrial and management), law, language and literature, politics and government, public administration, and statistics (Chety, 1977). Fifteen of them furthered their studies in the Department of Linguistics. Figure 6 shows the different grants funded to the Thai graduate scholars during their stay in UPD; Figure 7 illustrates the various employment sectors of the Thai scholars before pursuing their studies in UPD.

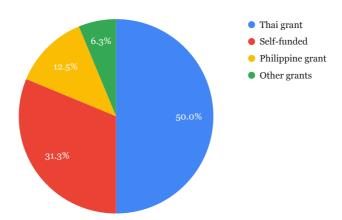


Figure 6. Percentage of Grants Funded to the Thai Scholars to Pursue Their Studies at UP Department of Linguistics

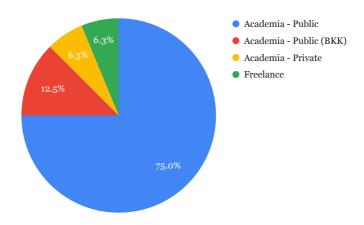


Figure 7. Percentage of the Employment Sectors of the Thai Scholars Before Pursuing Their Studies in the Universities of the Philippines Diliman

50.00% of all grants were funded by Thai government through the Ministry of Education, Bangkok, Thailand; 31.25% were self-funded; and 12.50% was granted by the UP Department of Linguistics, College of Arts and Sciences (CSSP at present) or other UP units. Three of the Thai scholars taught Thai language under the Department from 1971 to 1977. The students left after their graduation. Until now, there is no new Thai student graduating from the Department. At present, there is one Thai PhD candidate enrolling in the Department of Computer Science, UP Diliman, inspired by her father who got Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA) Scholarship funded by UPLB to study at Department of Agriculture in the late 1980s. This grant has been granted annually for government officials to further their studies in MA and PhD program in UPLB and other partner universities in Malaysia, Indonesia, and Thailand. Many

have been wondering about the reasons why the grants offered before at UPD were interrupted and how to bring those opportunities back consistently to international students once again.

The theses and dissertations used as primary data of this paper are invaluable, yet widely unknown. Of 16 outputs, only one is found published, much less in Thai. Initially, all works should be made accessible; they must be examined, digitized, and electronically available.

As mentioned previously (see Figure 5), almost all outputs focus on Thai structural/syntactic studies. There is a lack of other linguistic fields, e.g., sociolinguistics, lexicography, dialectology, diachronic linguistics, etc., on Thai research under the Department in the said period. The research studies accomplished by Thai scholars under other UP colleges and/or constituent units in the same period should be explored. All works related to Thai under UP should be compiled and made available to, at least, the UP community. Interdisciplinary findings on "Thai" in particular past period may help us connect with, relate to, understand, and/or solve the problems being raised at present.

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Legacy Language Materials in the Ernesto Constantino Collection: Challenges and Lessons for Building a Philippine Language Archive

Elsie Marie T. Or and Dustin Matthew O. Estrellado

Abstract

The late Dr. Ernesto Constantino was a prominent Filipino linguist who conducted many comparative studies on the morphology and syntax of various Philippine indigenous languages. As such, his personal collection, which was donated to the University Archives of the University of the Philippines Diliman, contains a wealth of raw data collected from different communities all over the Philippines. To date, we have cataloged 458 magnetic reel tapes and 733 cassette tapes from various linguistic fieldwork conducted by Dr. Constantino and his team of research assistants between the 1960s and the 1990s. We have also so far cata-

loged word and sentence lists in over a hundred Philippine language varieties. Many of these languages and dialects are under-studied while some, such as Yogad, Bolinao, and Manide, are also currently marked as threatened or endangered languages. This paper presents a preliminary assessment of the state of the legacy language materials in the Constantino Collection. We identify challenges that we face in cataloging and archiving the materials and the issues that should be faced in attempting to get subsequent use of the materials.

Keywords: language archives, language documentation, language preservation, Philippine languages and dialects, endangered languages

1 Introduction

The late Dr. Ernesto Constantino (1930–2016) was a prominent Filipino linguist who took an active role in the adoption and development of Filipino as the Philippines' national language. Constantino is considered as one of the pillars of linguistics in the Philippines and his research primarily focused on the comparative study of the morphosyntactic structures of various Philippine indigenous languages. Among his notable works are "The Sentence Patterns of Twenty-six Philippine Languages" (1965), "The Deep Structures of Philippine Languages" (1970), "Tagalog and Other Major Languages in the Philippines" (1971), and "The 'Universal Approach' and the National Language of the Philippines" (1974).

Legacy Language Materials in the Ernesto Constantino Collection

From the 1960s up until his retirement in 1993, Dr. Constantino led a number of big, long-term research projects through which he and his team of research assistants and graduate students at the University of the Philippines Department of Linguistics (UP Lingg) gathered language data from as many Philippine languages and dialects as possible. They mostly used a direct elicitation method, which required language consultants to translate over 2,000 test sentences and over 5,000 words and phrases into their own languages.

Figures 1 and 2 show a summary of the types of words and sentences included in the elicitation materials they developed. These images were taken from a proposal drafted on August 11, 1965 for the establishment of a Research Center for Philippine Languages which was signed by Constantino and three other members of UP Lingg at the time, namely, Ernesto H. Cubar, Marietta N. Posoncuy, and Consuelo J. Paz.

The data which they had gathered within the span of more than three decades are preserved in audio recordings and in handwritten and typewritten transcriptions. This collection of language materials was turned over by the Constantino family to the Archives Section of the University of the Philippines Diliman Main Library (University Archives) along with Dr. Constantino's other personal documents and materials, such as books, correspondences, field notes, and unpublished manuscripts, upon his death in 2016.

Due to the lack of personnel at the University Archives, only a very general description of the contents of the collection was made. UP Lingg borrowed the collection to create a more detailed catalog and to digitize the legacy language materials and other relevant documents that we hoped to find in the collection. As of this writing, we are still in the

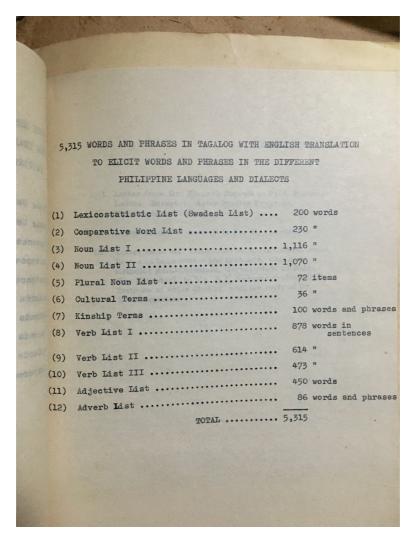


Figure 1. Summary of Types of Words and Phrases in Constantino's Elicitation Material

process of cataloging all of the materials in the collection, which contains 211 document boxes and 70 big corrugated boxes. According to the estimated measurement made by the University Archives Section, the

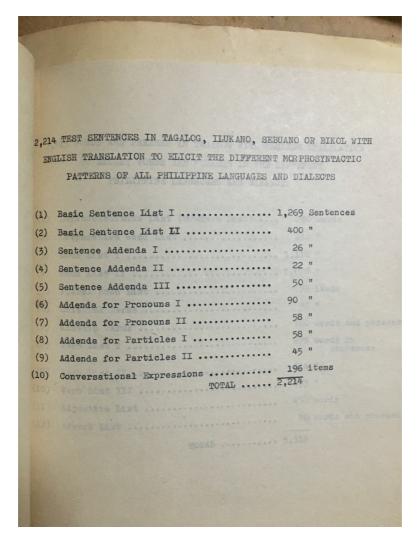


Figure 2. Summary of Types of Sentences in Constantino's Elicitation Material

collection contains 34.64 linear meters of archival materials. However, this measurement was given to us before they later on discovered additional boxes in the library's storage that were apparently also part of

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the collection donated by the family to the University, therefore this measurement will be updated once the cataloging and rehousing of the materials are completed.



Figure 3. The Ernesto Constantino Collection at Its Temporary Storage Area

Also not included in the above-stated count are several more boxes of over 730 cassette and microcassette tapes, which had been directly turned over to UP Lingg in 2013. The digitization of this collection of cassette and microcassette tapes is also currently ongoing under a separate digitization project headed by Mr. Michael Manahan.

We have yet to find a complete index which lists all of the language materials that are available in the entire collection—that is, if one had



Figure 4. Some of the Cassette and Microcassette Tapes in the Collection

ever been made. We have so far identified 458 magnetic reel tapes, as well as several reams of word lists and sentence lists in over a hundred Philippine languages. Some of these are available in multiple dialectal

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varieties that were translated by speakers hailing from different parts of the Philippines (see §6).



Figure 5. A Magnetic Reel-to-reel Tape From the Collection

The earliest audio recordings that we have found in the collection donated to the University Archives were recorded in open magnetic reel

Legacy Language Materials in the Ernesto Constantino Collection

tapes in 1960. Many of the cassette and microcassette tapes are undated so it is unclear when some of the recordings were created. Among the cassette tape recordings that indicate dates of recording, we found that the earliest ones were created in 1975.

The collection moreover contains multiple drafts of Constantino's ambitious final but unfinished project titled "The Universal Dictionary of Philippine Languages" (see Figure 6). This project was funded by the Toyota Foundation from 1986 to 1992 and Constantino planned for it to contain over 20,000 entries with headwords in English translated to their equivalent or closest equivalent expressions in at least 105 Philippine languages (Constantino, 1994).

Aside from these legacy language materials, the collection also includes books and journals that were previously owned by Constantino, as well as letters, fieldwork notes and reports, administrative documents, lecture notes, etc.

Constantino was also a folklorist, who was one of the co-founders of the University of the Philippines' Folklorist Society. As part of his folklore research, he had also recorded several oral narratives and folk songs from native speakers of different indigenous languages in the Philippines. A few of these had been published as part of the Endangered Languages of the Pacific Rim project of the Tokyo University of Foreign Studies in Japan (Constantino, 2001, 2002, 2003).

There are also manuscripts and materials that were created and owned by Cecilio Lopez (1898–1979) that somehow found their way into Constantino's collection. Lopez is known as the first trained Filipino linguist. He remains a significant figure in Philippine linguistics, who



Figure 6. A Page From a Draft of "The Universal Dictionary of Philippine Languages"

exerted a lot of influence in the crafting of language policies in our country after the Second World War.

While we have yet to completely catalog personal documents that belonged to Constantino and Lopez, we believe that they might serve as valuable resources in piecing together the historical development of linguistics, of the evolving language policies in the country, as well as the development of the social science disciplines in our country, particularly in academic institutions from the 1900s to the present day. Researchers who might be interested in studying the intellectual life of the two figures might also find these academic paraphernalia of interest as well.

We should note at this point, however, that the succeeding discussion will focus on the legacy language materials in the collection that were produced by Constantino and other researchers at the UP Department of Linguistics for the purpose of language documentation and other language-related studies. The objective of the present paper is mainly to provide a preliminary assessment of these language materials and to present reflections on the prospects of and challenges in getting secondary use out of them.

2 Potentials for Secondary Use

The Constantino Collection is a veritable trove of language data from over a hundred language varieties in the Philippines. Most of the languages in the collection are still under-studied. There are also data on languages such as Yogad, Bolinao, Adasen, Bangon, Bogkalot, and Manide, which are currently tagged as threatened or endangered languages (Eberhard et al., 2022). There are also recordings and transcribed word and sentence lists in languages which are already nearly extinct,

such as Ata, as spoken in Negros Oriental, and Ratagnon, whose native speakers' ancestral domain is located in Occidental Mindoro.

There are plenty of opportunities for secondary use of these legacy language materials:

- They might serve as jumping-off points for the creation of language descriptions, reference grammars, and glossaries or dictionaries. These in turn could be used in developing materials for language revitalization projects and/or language instruction.
- The data in this collection could be used for comparative, typological, and diachronic linguistic studies.
- The data recorded in these materials might reflect earlier forms of the language and therefore could be used to trace how languages have changed over several decades and the forces that might have contributed to language change.
- These data can also be used to train linguistics students by providing them with hands-on experience in transcribing, processing, and analyzing linguistic data. This would especially be useful in circumstances where students are not able to conduct fieldwork and gather data on their own.

Aside from these possible uses of the legacy materials in linguistics-related research and language development, the audio recordings of various oral narratives and folk songs will also be valuable to the documentation and study of Philippine folklore, culture, social history, and ethnomusicology. They also have the potential of giving opportunities to the descendants of the speakers, who were recorded in the reels and tapes, as well as other members of the various ethnolinguistic commu-

nities from which the data were gathered from, to reconnect with and rediscover their familial and/or cultural heritage.

3 Challenges in Archiving and Using Legacy Language Materials in the Collection

As with other legacy language materials found in the archives of other institutions in other parts of the world, the materials in the Constantino Collection present several challenges to us who are in the process of archiving and digitizing them, and to anyone who would want to get secondary use out of them

Austin (2017) identified four broad areas where legacy materials commonly present challenges to archivists and secondary users. These include (a) the form of the materials, (b) the content of the original recorded materials, (c) the analyses of the data recorded, and (d) the context related to the recording of the data. The following subsections will discuss each issue as pertains to the legacy materials in the Constantino Collection.

3.1 Challenges With the Form of the Legacy Materials

In terms of the form of the legacy materials, as previously noted, the materials come in both written text and audio formats. The audio recordings in the collection are in three types of media: (a) magnetic reel tapes, (b) cassette tapes, and (c) microcassette tapes. The open magnetic reel tapes also come in two forms:

- 1. polyester-based reel tapes (an example of which is shown in Figure 5) and
- 2. acetate reel tapes (an example of a silicone-coated acetate reel tape is shown in Figure 19).

The two types of reel tapes are prone to different types of problems, with the former being more prone to turning sticky when exposed to high humidity (a condition called "sticky shed syndrome"), and the latter being more prone to brittleness when they lose their plastic coating (Arton, 2015). Polyester-based tapes are also more prone to becoming deformed when it is too tightly wound (Lacinak et al., 2017). The physical condition of all of the audio recordings in the collection have yet to be comprehensively assessed by professional audio preservationists.

It should be emphasized that there is a real urgency in digitizing the open magnetic reel tapes. Some of the tapes in the collection are already moldy and, according to a report issued by the National Film and Sound Archive of Australia (2017), magnetic media not digitized by 2025 will most likely be lost forever due to the possible degradation of the materials. Working machines that can be used to play the recordings are also increasingly hard to find.

Magnetic media need to be stored in an environment with limited variation in temperatures and humidity, and where dust and other particles would have little chance of getting on the tapes (Van Bogart, 1995). Table 1, adapted from Arton (2015), shows structural considerations for storing audio collections and a list of what audio materials should be protected from.

Temperature and humidity are particular concerns when it comes to open magnetic reel tapes, which is why these are mentioned in many

Table 1. Structural Considerations and Sources of Damage

Structural Considerations	Possible Sources of Damage
 climate control ventilation floor loading capacity fire suppression systems security 	 light flooding earthquakes and other vibrations magnetic fields pest infestations

care and preservations guidelines for audio materials (e.g., Arton, 2015; Audio Engineering Society, 2006; Byers, 2003; Lacinak et al., 2017; Van Bogart, 1995). However, a consensus on the best temperature and humidity levels has not yet been reached in the industry. Generally, Arton (2015) writes that for long-term storage, a temperature range of 8°C to 12°C (46°F to 53°F) and a relative humidity (RH) level between 25% to 35% have been reported as being part of common best practices. Lacinak et al. (2017) also writes that temperature should not fluctuate more than +1°C (3°F), while RH levels should not fluctuate more than +5% within a 24-hour period. Proper ventilation and a good air conditioning system are therefore required if a collection is to be preserved for a long period of time.

When it comes to digitizing the audio recordings in the tapes, finding relatively low-cost machines for digitizing the cassette tapes was not difficult, however, the resulting digitized files that these machines can produce are in MP3 formats. MP3 is not ideal for archiving as it produces compressed, lossy files with some audio data not captured and therefore audio recordings in this format is not deemed to be ideal

for acoustic analysis (Kung et al., 2020). However, since most of the audio recordings were done in less than ideal environments in the field, they likely would not have been ideal for such type of analysis at the outset. The digitization and preservation of these audio materials in the most accessible format possible by using machines that are more readily on-hand are therefore better done sooner than later to avoid completely losing the recordings.

We still have yet to come up with a solution for digitizing the hundreds of magnetic reel tapes that are in the collection. There are institutions and private companies which already have technology for digitizing reel-to-reel tapes. However, funds still have to be raised in order to avail of these services. Striking a partnership with institutions, which already have the equipment and trained technicians for preserving and digitizing audio recordings, might be ideal as they might also already have readily publicly accessible and sustainable digital repositories. We can also weigh the options of whether or not it would be better instead to procure audio digitization machines and hire or train personnel who will be in charge of preserving, digitizing, and managing the storage and access to the audio materials. This would allow us to collect and digitize more legacy materials that might turn up from other alumni or researchers who might be interested in storing their data on Philippine languages in an academic institution such as ours.

Not all of the audio recordings had been transcribed immediately after they were recorded (or if they had been, we have yet to find the transcripts). Based on the written language data available in the collection, we can surmise that Constantino prioritized the transcription of elicited words and sentence constructions. This is likely due to the

fact that, based on his published research work, he largely focused on the description of the grammatical structure of these languages and the comparative analysis of their various typological features. The objective of these types of studies was to identify similarities or what could be considered as "core features" in the grammatical systems of these related Philippine language. This was also part of Constantino's objective of utilizing a "universal approach" in developing the Philippine's national language (Constantino, 1972/2015). These data were also used in the construction of Constantino's final but unfinished project, *The Universal Dictionary of Philippine Languages*.

The written language materials require sorting as there appears to be duplicates included in the files. While some data have been typewritten (see Figure 7), there are also many handwritten texts, which can be challenging to decipher, especially those that are written in cursive (see Figure 8). This is also true for the field reports we found in the collection that were written by Constantino's research assistants. Some of these texts also contain erasures, corrections, and marginalia, which all need to be analyzed and traced to the pieces of information that they might be commenting on.

Phonetic transcriptions were found in some of the materials. These seem to employ symbols based on the International Phonetic Alphabet. While most of the Philippine languages that were documented do not have fully standardized orthographic systems, a larger portion of the written language materials nonetheless make use of the Roman alphabet. Many documents also contain markings, which will have to be interpreted as to what they were meant to denote. Underlining of certain words, for example, can be seen in Figure 9.

```
Instructions: Please give one or more normal translations of each of the following sentences. As much as possible give the translations which are closest in structure to the Tagalog sentences.
    to the Tagalog sentences.
   1. Nahulog ang bata sa bintana. (The child fell out of the window.)
     midodag og bata sog bintana
   2. Hindi nahulog ang bata. (The child did not fall.)
     onda kodogdag og bata
   3. Mahuhulog ang bata sa bintana kung hindi mo hahawakan. (The child will fall out of the window if you don't hold him.)
    modogdag og bata sog bintana bila di mo pagowidan
   4. Nahuhulog ang bata sa bintana tuwing umaga. (The child falls out of the window every morning.)
    modogdag og bata sog bintana giyap sisolom
  5. Hindi mahuhulog ang bata sa bintana kung hahawakan mo. (The child will not fall out of the window if you hold him.)
    ondi modogdag og bata bila pogowidan mo
  6. Hindi na nahuhulog ang bata sa bintana tuwing umaga. (The child does not fall out of the window every morning anymore.)
    ondi na modogdag og bata giyap sisolom
  7. Nagalit ang dalaga sa bata. (The lady got angry with the child.)
    miglolingit og dolaga sog bata
  8. Hindi nagalit ang dalaga sa akin. (The lady did not get angry with me.)
    onda poglolingit dinakon og dolaga

    Magagalit ang dalaga sa iyo kung hindi ka kakain.
(The lady will get angry with you if you don't eat.)

    moglolingit diya nika og dolaga koyon bila ondi a koman
10. Nagagalit na naman ang dalaga. (The lady is angry again.)
     miglolingit nosop og dolaga koyon
11. Hindi magagalit ang dalaga sa iyo kung kakain ka. (The lady will not get angry with you if you eat.)
    ondi moglolingit og dolaga koyon bila koman ka
```

Figure 7. A Page From a Typewritten Sentence List for Subanen

3.2 Challenges With the Content of the Materials

Among the issues identified by Austin (2017) with regard to the content of legacy language materials is the appropriateness of the content that had been recorded, which might be considered taboo or inappropriate

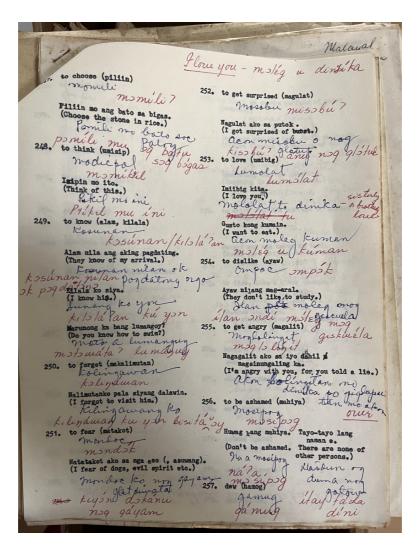


Figure 8. A Page From a Word and Phrase List With Subanen Translations and Broad Phonetic Transcriptions

according to current standards of acceptability and sensitivity. It is also possible that the original documenters recorded data that were not

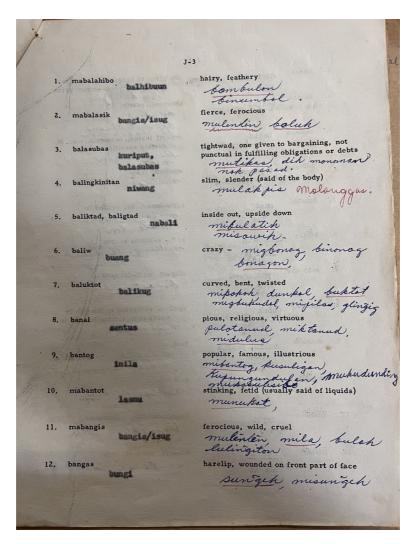


Figure 9. A Page From a Subanen Word List Where Underlined Portions Can Be Seen

meant for wide distribution, either due to privacy concerns or to protect information related to indigenous knowledge and practices.

This issue is not very prevalent in the written language data in the collection, given that they mostly involve translations of context-free words and sentences. However, personal information included in the elicited materials (e.g., full names and addresses of language consultants) and in the field notes of researchers would have to be treated carefully.

Audio recordings, on the other hand, need to be replayed and checked for content that might be of more sensitive nature or which might not have been meant for public access. For example, there are narrative accounts of killing people and altercations between two groups. There are also recordings of ritual songs and chants, for which the UP Lingg might require permission from the ethnolinguistic groups wherein these traditions are passed down and ask if these can be made available publicly or for limited access only according to a specific set of guidelines.

Below is an example of a listing found on the labels included inside the box of one of the reel tapes. The symbols, capitalizations, and indentations originally used in the label are preserved as much as possible in the transcription below.

```
"ILONGOT — Binuangan, Belansi, Dupax, NV.

Rec. 2/29 [sic]/67

Singing –

SIDE I

0–21 IBALOY Gospel Song

23–37 ILONGOT COURTSHIP SONG (Kámma)
PISANO ANGGAMAK

40–52 LINUP LINUP (song for the Dead)

ILONGOT — TEGEP, BELANSI, DUPAX, N.V.

55–274 LX Ma. Ignacio "Yapugo" Lukba" "
```

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SIDE II — IL	ONGOT /Binuangan, Dupax
March 1, 1967	7
0–19	Angagáked – song, offering to spirits after hunt by Syengba
	(the hunter's name)
20-32	"Nayanud tamlubat" song by "Yapugo"
	(The Lost Ring in River) Mr. Ignacio Lukba
35–57	Story "Turtle & The Monkey"
59–70	"The Hunting Story" by Syĕngbĕ
72–84	"The Hunting Story" by Kamma Utaw
86–121	Historical Account 18 Japs Killed by 23 Ilongots
123–130	Děmo (kaingin song)
141–145	Farmers' Prayer (song by Mrs. Mago Pulingat)
145–158	Happiness of farmers (song by Mrs. Mago Pulingat)
159–172	Linup Linup song by Kamma Utaw
175–202	TAGAPÁNDET (Victor's song) to the spirit of the defeated
	dead by Kamma Utaw
204–211	Dumyeke – song about eating in mt.
212–265	LÍT LIT (Native violin) by Taddem
267–295	SONG by Taddem
297-311	Děmo (Song to his task to be finished)
312–336	Speech by Taddem
338–359	Morning Bath Song – Kamma Lutaw
359–364	(Explanation of song) – Kamma Lutaw
364-405	"Ana'na" Welcome Song – Kamma Lutaw
407–471	Competition Song (in Love)
To end	"Nga dey Pakitumbeg'an moy at tam degen muy""

[Marked "2"]

The provided titles for the content in the audio recordings are usually broad or general and do not indicate specific details about the recorded

songs or narratives. The sample transcription above provides some specific details for some content (e.g., number of Japanese soldiers killed by how many Ilongots; what the song titled "Dumyeke"), but some do not (e.g., we do not know what the speech by Taddem is about; nor what the song title "Nayanud tamlubat" means and what it is about). The names of the people who were included in the label of some content (e.g., Kamma Lutaw, Taddem, Mrs. Mago Pulingat), while other were not. Collaboration with speakers of the languages recorded in the tapes will have to be sought in order to re-check, transcribe, and decide whether or not the contents of the audio recordings could be made available to the public or at least to future researchers.

3.3 Challenges With the Analyses of the Data Recorded

The data included in the collection would be generally considered as raw data as they are not accompanied by morphological parsing and glossing. Figure 10, for example, shows a short passage which is surmised to be a story about the founding of the municipality of Bolinao, typewritten on a half sheet of paper. The title is handwritten in cursive and reads "last story – Founding of Bolinao," under which the date June 27, 1966 is written. We have yet to find the translation of the story and information about who narrated the story, who recorded and transcribed the story, how the story was collected, and for what research project the story was collected. We know that multiple people (Constantino's team of students and research assistants) conducted the fieldwork and worked with language consultants in order to collect the data that comprise the

collection, therefore we can see different handwriting styles, note-taking styles, and labelling methods throughout the collection.

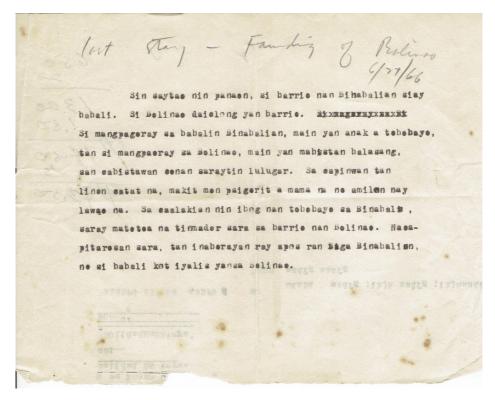


Figure 10. A Story About the Founding of Bolinao

In Figure 11, the motivation behind glossing only certain selected words in the Sambal text is unclear. However, this might be an early attempt of the researcher at analyzing the text based on the accompanying English translation. A completed clean transcription with glossing of this text has not yet been found in the collection.

The data in the collection do not include any indication as to whether or not they had been used in any completed study, or if they had

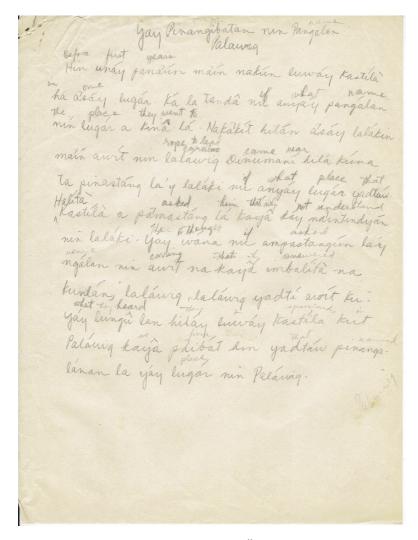


Figure 11. Origin of the Name "Palawig" In Sambal

been published in some platform and in whatever format. If grammar sketches or reference grammars were to be made using the data in the collection, some effort will have to be exerted to trace these and organize cross-indices.

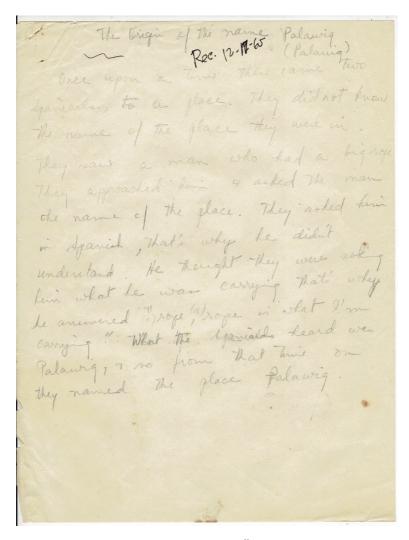


Figure 12. Origin of the Name "Palawig" In English

Phonetic transcriptions of the data are available in the collection for some of the collected word lists and sentence lists. However, cross-indexing of transcripts and their corresponding audio recordings is not completely systematic.

The way that transcripts are cross-indexed with their corresponding audio is via the name of the language consultant who was recorded. Figure 13, for example, includes the name ("A. Arbison") and location ("Luuk, Sulu") of the Tausug language consultant, handwritten on the upper right corner. Only the first letter of the person's given name is provided, but thankfully, only one Tausug speaker with the same surname was found to have audio recordings in the collection.

In the handwritten translations of a sentence list from a Yogad language consultant shown in Figure 14, there are what seem to be accent markings over certain syllables written in blue ink. However, information is lacking about the source of the data and, while there is a label which reads "recorded" and what is presumed to be the date of the recording, it is unclear whether this means that an audio recording of the language consultant was made or if it refers to the date when the written translations were made. As we have not found a Yogad audio recording in the collection, it is also not yet possible to verify the accent or stress markings placed by the unknown annotator.

Aside from these, we also find rough notes on the lexicon or grammar of certain languages. However, these often lack explicit explanations and some labels or abbreviations used in the notes need to be interpreted by secondary users. Figure 15 is a page showing what seem to be morphological paradigms of certain root words in Bolinao. Whether or not the words written down are indeed Bolinao need to be verified because, while it was found in an envelope labelled as "Bolinao" and together with other word and sentence lists in Bolinao, the label on top of the page reads as "Bol" with a question mark in parentheses. Abbreviations were also used, as we can see in the first set of words:

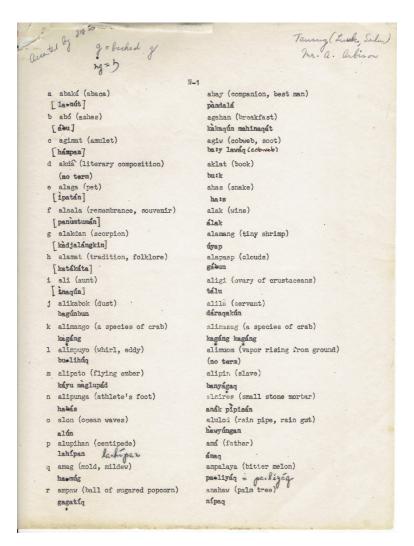


Figure 13. First Page of the Broad Phonetic Transcription of a Tausug Word List

(a) *pt.*; (b) *ft.*; (c) *p-*; and (d) *imp*. The meaning of these abbreviations will have to be deciphered and verified via consultation with native speakers.

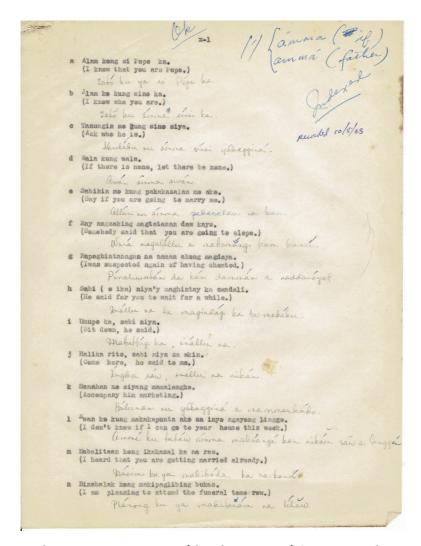


Figure 14. Accent Marking in a Yogad Sentence List

3.4 Challenges With the Lack of Context

As Austin (2017) writes, "some of the most difficult issues to deal with in legacy text materials relate to the lack of metadata (data about the data) and the meta-documentation (information about the context of

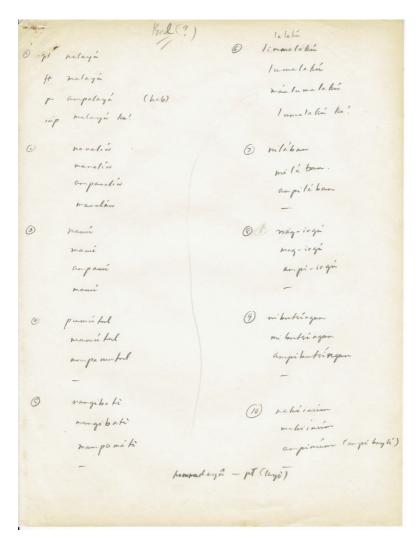


Figure 15. Notes on What Might Be Bolinao Sample Word Paradigms

collection and analysis)" (p. 37). Information about the speakers who provided the data could be missing. Austin also asserts that information about the collector of the data could also be valuable and particularly useful in interpreting how the data was analyzed, annotated, and tran-

scribed, and understanding the nature and the context surrounding the legacy language materials. This type of data could include the researcher's background, the languages that they have knowledge of, their research training, as well as details about the objectives of the original project for which the data were collected. The legacy language materials in the Constantino Collection are lacking in metadata related to the language speakers recorded and to the researchers who created the recordings, transcriptions, and annotations on the data.

Because the data were collected over a span of decades and by multiple researchers, the labelling and annotation formats also vary as well as the amount of background information that were noted down particularly on the written language materials.

IEXICOSTATISTIC LIST FOR PHILIPPINE LANGUAGES (Revised 1967) Ernesto Constantino
ESSENTIAL DATA
Language or dialect funisesqua
Native speaker(s) <u>FM - A. Evo</u>
Sitio, barrio, town or city, province Many Surger (hometon-Bacan)
TranscribedRecorded _ 9 8 71

Figure 16. "Essential Data" About a Sorsoganon Language Consultant

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The word and sentence lists in the collection usually only contained the following fields: (a) name of the language or dialect, (b) the full name of the native speaker, (c) their hometown or city, (d) the name of the transcriber, and (e) the date of recording. Figure 16 is an example of the form where these data are noted down. We can see that, instead of filling in the "transcribed" field, the researcher signed their initials under the date of recording. There is an additional note stating where the language consultant's hometown is. However, it is unclear whether the field "sitio, barrio, town or city, province" is the place where the informant grew up in, where they are currently residing, or where they answered the elicitation material. Other information about the language consultant that cannot be discerned but which might be relevant include their history, age at the time of recording, details about their place of residence, and other languages that they might also be fluent in.

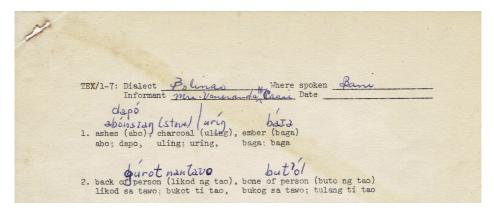


Figure 17. Limited Background Information on a Bolinao Word List

Some of the materials in the collection have even less information as we can see on the first page of the word list in Figure 17, where only the name of the language or dialect and the language consultant as well

as the place where the dialect is spoken were provided. The field for the date was left empty. No additional information was also provided about where the place Bani is located.¹

There is also an uneven level of informativeness in the labels of the audio recording. Most of the reel tapes include note cards describing the contents of the audio recordings, while there are a few where the description is written on the box itself. The former generally provide more information.

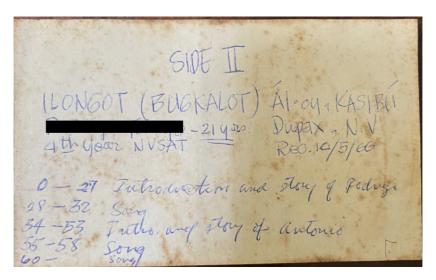


Figure 18. Notecard Describing Contents of an Ilongot (Bugkalot)
Audio Recording #01

In Figure 18, we learn the name of the speaker recorded in the reel, their age, what is assumed to be their year level in college and the name of their school. It is unclear whether the recording was done in Dupax,

¹There is a municipality called Bani in the province of Pangasinan, which is among the places where Bolinao is spoken.

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Nueva Vizcaya or if this is the speaker's hometown. The date of recording is also indicated.

We can also see in Figure 18 that we have less information about the second speaker recorded, who is simply referred to by his given name "Antonio." In the notecard description in Figure 19, the singers and performers who were recorded are only referred to by their gender. Meanwhile, only the first names or nicknames are provided in the notecard shown in Figure 20.

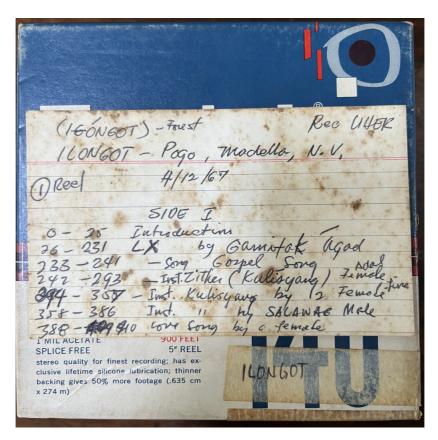


Figure 19. Notecard Describing Contents of an Ilongot (Bugkalot)
Audio Recording #02



Figure 20. Notecard Describing Contents of an Ilongot (Bugkalot)
Audio Recording #03

Most of the audio recording labels are handwritten, therefore there is a chance that these could be misread and copied with some errors onto the digital catalog that we are building for this project. Acronyms and abbreviations (like "LX" and "NV" as shown in Figures 19 and 20) would need to be decoded. Many are, however, usually easy enough to figure out since they appear regularly ("LX" most likely means lexicon; "NV" is a place name "Nueva Vizcaya"). Somewhat more puzzling are notes like "transferred" (to where?) or "see other reel" (which one?).

Like many of the word and sentence lists in the collection, the names of the researcher who recorded the speakers in the reel tapes are not included. The reels are not labeled with reference numbers, therefore, they cannot be easily checked against available transcripts. Overall, the organizing principle behind these legacy language materials and the Constantino Collection as a whole has yet to be figured out.

Constantino did write about the process for how they collected data for his Universal Dictionary project in a conference paper published in 1994. However, we are not sure if the procedure that he outlined there, which include how they worked together with language consultants, was something that he and his assistants were already practicing in the 1960s and 1970s as well. The description of their process and the surrounding context of the data recorded are valuable as they factor in the re-analysis and interpretation of the data, and might shed some light on the notes and corrections written by Constantino or his assistants on some of the transcripts as well.

We should note, however, that the legacy language materials in the collection were created before documentary linguistics became firmly established as its own discipline and so one could say that it is understandable why the metadata that we now recognize as being crucial to our interpretation and analyses are not present, or at least not systematically indicated and organized.

We are not yet done sifting through all of the materials in the collection though, so there is still a chance that we might find more documentation about the context surrounding the legacy language materials. Moreover, language and dialect names have to be verified. Audio recordings need to be matched to their transcripts, and fieldwork notes need

to be matched to the data collected. The repatriation and digitization of the materials, as well as the establishment of infrastructures and systems to ensure their preservation and the creation of access to or ways of transmitting the knowledge recorded in these materials all have to be planned and carried out as well. There is undoubtedly still a lot of work to be done in processing the legacy language materials in the collection.

4 The State of Language Archiving in the Philippines

While Constantino's legacy language materials essentially checks all of the issues that legacy materials pose that Austin (2017) and Dobrin and Schwartz (2021) identified, especially in their application to language documentation, description, and revitalization, we do see here a great opportunity for fulfilling the vision that Constantino and his colleagues, Ernesto Cubar, Consuelo Paz, and Marietta Posoncuy, had in the 1960s of creating a Research Center for Philippine Languages, which among other things, will house the archives of Philippine languages and dialects. Even then in the early 1960s, they had already recognized the increasingly threatened status of many Philippine languages and the need for a way to document and preserve them.

The archives that we will build, however, need to be better than the physical archives that Constantino started and the archives that might have been originally envisioned by their group. Over the decades, Constantino and UP Lingg were not able to keep up to date on and apply best practices for building and maintaining a language archive

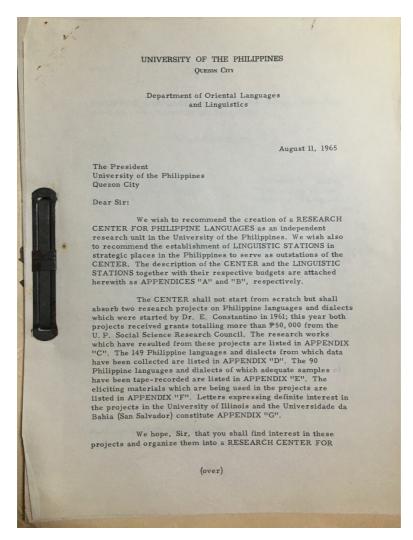


Figure 21. 1965 Proposal to Create a Research Center for Philippine Language at the University of the Philippines

that would be able to perform the following functions as described by Johnson (2004, as cited in Austin, 2011):

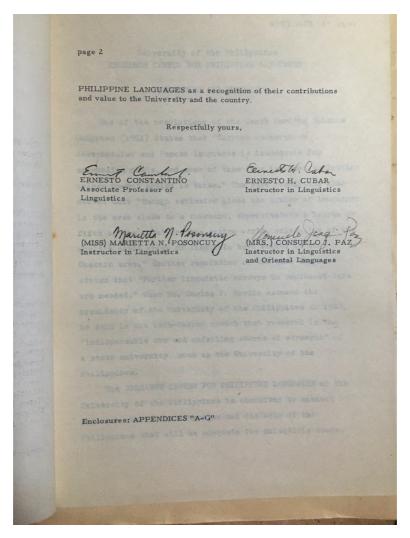


Figure 21. 1965 Proposal to Create a Research Center for Philippine Language at the University of the Philippines

- 1. to preserve recordings of endangered/minority languages for future generations;
- 2. to facilitate the re-use of materials for:

- language maintenance and revitalization programs;
- typological, historical, comparative studies;
- any kind of linguistic, anthropological, psychological, etc. study that other researchers might conduct;
- 3. to foster development of both oral and written literatures for endangered languages; and
- 4. to make known what documentation currently exist for which languages.

The practice of developing and maintaining a language archive require specific technical skills, which are not usually taught as part of the curricula of most linguistics programs. Meanwhile, few people in the Philippines engage in the study of archival and preservation methods and practices due to the perceived lack of employment opportunities and value placed on the field and its practice in the Philippines.

More and more researchers in the Philippines are greatly motivated to engage in language documentation and description, thanks in part to the implementation of policies and programs such as the Mother Tonguebased Multilingual Education (MTB-MLE) Program and Indigenous Peoples Education (IPEd) Policy, which among other things require the codification and standardization of the grammatical rules and orthography of languages for them to be considered as viable mediums of instruction in the early grades. While the implementation particularly of the MTB-MLE program has been controversial and suffers from many problems, it has put a spotlight on threatened Philippine languages and the need to document, develop and/or revitalize less-studied languages.

The practice of archiving language materials collected in order to preserve them for future generations, however, has not yet caught on

due to the lack of people with skills and knowledge and the lack of funds that could provide people opportunities to work full-time on such an endeavor. There is also some hesitance on the part of researchers to make their primary data widely accessible due to ethical issues that need to be considered in order to protect the rights of indigenous people, since language is also considered part of their intangible indigenous knowledge and wealth that are protected by law. Thus being the case, we could say that language documentation as practiced by many local researchers in the Philippines has not yet been able to fully serve the mandates of the discipline as described by Henke and Berez-Kroeker (2016) and Himmelmann (1998), who write that the contemporary practice of language documentation should consider as among its top priorities the long-term storage and preservation of primary data, especially if these are endangered language materials. Still, there are, however, a few researchers who have deposited their Philippine language data in well-established digital repositories. Maria Kristina Gallego's collection of Ibatan audio and video recordings is one of the most recently archived corpus of a Philippine language documentation project on the Endangered Languages Archive (Gallego, 2019). There are also local organizations such as the Mangyan Heritage Center, which maintain their own archives and data repositories.

More and more people are becoming aware of the importance of preserving, maintaining and revitalizing endangered languages. This is perhaps as best evidenced by the United Nation's declaration of 2022 to 2032 as the Decade of Indigenous Languages. Researchers engaged in language documentation are also increasingly being made conscious of their responsibility of not only producing good descriptions of the

languages that they are documenting, but also of archiving their corpora, not only for preservation, but also for possible future use.

The issues and challenges that we have identified in the archived language materials in the Constantino Collections teach us things to avoid and things to improve. Among these is the value of creating and keeping well-organized metadata and meta-documentation of collected language data. These identified issues will also inform the creation of a more sustainable plan and system of use for language data that will be kept in what we hope will become a "living archive," so that these data can continue to be used for the advancement of our knowledge of Philippine languages and linguistics, and also continue to benefit the communities where the data would be gathered from.

Being more active in providing and promoting open access to data and scholarship being done by our researchers is also important so that it will be easier to identify what work still needs to be done. Rather than repeating work that has already been done on certain languages, we could instead be drawing our attention to the still lesser-studied languages as well as devising other methods and questions for further enriching our knowledge about our increasingly endangered languages.

The UP Department of Linguistics is not alone in the Philippines in wanting to build a repository of Philippine language materials. The National Commission on the Filipino Language or the Komisyon sa Wikang Filipino (KWF) has recently launched its repository of Philippine languages and culture (www.kwfwikaatkultura.ph). Based on its initial content, it appears that they will be including basic information on different Philippine languages, as well as audio and video recordings of native speakers using the language. The Summer Institute

of Linguistics (SIL) Philippines has already established their Philippines Language and Culture Archives (https://philippines.sil.org/resources), which include their publications and the data that their members have collected from various Philippine languages since SIL Philippines was first founded in 1953.

In our case, cataloging and transferring the legacy language materials from the physical archives that form a part of the Constantino Collection to a digital archive is a first step, and there are still many questions that we have to answer and challenges to face. There is the question, for instance, of the ethics involved in making the data available more widely to the public by transferring it to a digital archive. Systems of access to the data would likely require that permissions have to be renewed or sought, so new agreements and partnerships with various indigenous cultural communities (ICCs) will need to be formed. This work alone will require a lot of resources. But the work must go on for the sake of our indigenous languages and cultural heritage. The next steps that we have to take in order to build on the Philippine language archives based on the legacy materials are also more or less clear, as guided by the lessons from what Constantino and his colleagues have already built.

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6 Appendix

Working List of Philippine Language Data in the Ernesto Constantino Collection

Note: This is not yet the final list of Philippine languages that have data available in the Constantino Collection. A final list can only be supplied once the data and labels used have been verified. Many materials were labelled according to the location or hometown of the language consultants. These were cross-checked against available information on the twenty-fifth edition of the Ethnologue, and as much as possible dialects of the same language are grouped together. For example, the audio recordings labelled as "Hambali" were categorized as resources of the Sambal Botolan language. ISO labels are also supplied based on what is listed in the Ethnologue. Some labels for language materials

in the collection only indicate general names. For example, there are materials simply labelled as Bisaya or Mangyan with no other indication of which language under these subgroups the data are from.

	Language	Sentence List	Word List	Audio Recording
1.	Adasen (tiu)	√	✓	<u>√</u>
2.	Agta, Casiguran Dumagat (dgc)	X	X	✓
3.	Agta, Mt. Iriga (agz)	X	X	✓
4.	Agutaynen (agn)	✓	X	✓
5.	Aklanon (akl)	✓	X	✓
6.	Alangan (alj)	X	X	✓
7.	Alta, Southern (agy)	X	X	✓
8.	Ata (atm)	X	X	✓
9.	Ati (atk)	X	X	✓
10.	Ayta	X	X	✓
11.	Ayta, Abellen (abp)	X	X	✓
12.	Ayta, Magbukun (ayt)	X	X	✓
13.	Bagobo-Klata (bgi)	✓	✓	✓
14.	Bantoanon (bno)	✓	✓	✓
15.	Bikol (bik)	✓	✓	✓
16.	Bikol, Buhi'non (ubl)	✓	✓	✓
17.	Bikol, Central (bcl)	✓	✓	✓
18.	Bikol, Libon (lbl)	✓	✓	✓
19.	Bikol, Miraya (rbl)	✓	✓	✓
20.	Bikol, Northern Catanduanes (cts)	✓	✓	X
21.	Bikol, Rinconada (bto)	✓	✓	✓
22.	Bikol, Southern Catanduanes (bln)	✓	✓	✓
23.	Binukid (bkd)	✓	✓	✓
24.	Binukidnon	✓	✓	✓
25.	Bisadya	✓	✓	X

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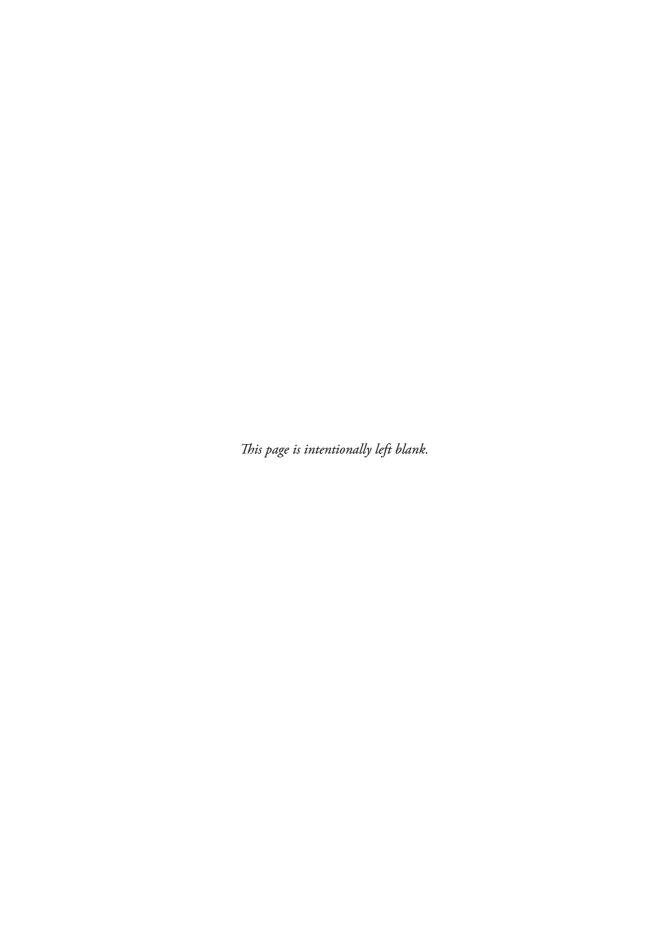
	Language	Sentence List	Word List	Audio Recording
26.	Bisaya	✓	Х	✓
27.	Blaan, Koronadal (bpr)	×	X	✓
28.	Blaan, Sarangani (bps)	×	X	✓
29.	Bogkalot (ilk)	✓	✓	✓
30.	Bolinao (smk)	✓	✓	✓
31.	Bontok, Central (lbk)	✓	✓	✓
32.	Bontok, Eastern (ebk)	✓	✓	✓
33.	Buhid (bku)	×	X	✓
34.	Butuanon (btw)	✓	X	X
35.	Capiznon (cps)	✓	✓	X
36.	Cebuano (ceb)	✓	✓	✓
37.	Chavacano (cbk)	✓	✓	✓
38.	Cuyonon (cyo)	✓	✓	✓
39.	Davawenyo (daw)	✓	✓	X
40.	Dumagat, Remontado (agv)	✓	✓	✓
41.	Ga'dang (gdg)	✓	✓	✓
42.	Gaddang (gad)	✓	✓	✓
43.	Hanunoo (hnn)	×	X	✓
44.	Hiligaynon (hil)	✓	✓	✓
45.	Ibaloi (ibl)	✓	✓	✓
46.	Ibanag (ibg)	✓	✓	✓
47.	Ifugao, Amganad (ifa)	✓	✓	X
48.	Ifugao, Batad (ifb)	✓	✓	X
49.	Ifugao, Mayoyao (ifu)	✓	✓	✓
50.	Ifugao, Tuwali (ifk)	✓	✓	✓
51.	Ifugao	✓	✓	✓
52.	Igorot	✓	✓	✓
53.	Ilocano (ilo)	✓	✓	✓
54.	Inabaknon (abx)	X	X	✓
55.	Inonhan (loc)	✓	✓	✓

	Language	Sentence List	Word List	Audio Recording
56.	Iranun (ilp)	√	1	✓
57.	Iraya (iry)	X	X	✓
58.	Isinay (inn)	✓	X	✓
59.	Isnag (isd)	✓	✓	✓
60.	Itawit (itv)	✓	✓	✓
61.	Itneg	✓	✓	✓
62.	Itneg, Binongan (itb)	✓	✓	✓
63.	Itneg, Inlaud (iti)	✓	✓	✓
64.	Itneg, Maeng (itt)	✓	✓	X
65.	Itneg, Masadiit (tis)	X	X	✓
66.	Itneg, Masadiit (tis)	✓	✓	✓
67.	Itneg, Moyadan (ity)	✓	✓	X
68.	Ivatan (ivv)	✓	✓	✓
69.	Kalagan (kqe)	✓	✓	X
70.	Kalagan, Kagan (kll)	✓	✓	X
71.	Kalanguya (kak)	X	X	✓
72.	Kalinga	✓	✓	✓
73.	Kalinga, Butbut (kyb)	✓	✓	✓
74.	Kalinga, Limos (kmk)	✓	X	✓
75.	Kalinga, Lubuagan (knb)	✓	✓	✓
76.	Kalinga, Tanudan (kml)	✓	✓	✓
77.	Kalinga, Vanaw (bjx)	✓	✓	✓
78.	Kamayo (kyk)	✓	X	✓
79.	Kankanaey (kne)	✓	✓	✓
80.	Kapampangan (pam)	✓	✓	✓
81.	Kinaray-a (krj)	✓	✓	✓
82.	Maguindanaon (mdh)	✓	✓	✓
83.	Mandaya (mry)	✓	✓	✓
84.	Mangyan	X	X	✓
85.	Manide (abd)	✓	✓	✓

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	Language	Sentence List	Word List	Audio Recording
86.	Manobo	✓	✓	1
87.	Manobo, Obo (obo)	X	X	✓
88.	Manobo, Cotabato (mta)	X	X	✓
89.	Manobo, Ata (atd)	X	X	✓
90.	Manobo, Dibabawon (mbd)	✓	X	✓
91.	Manobo, Matigsalug (mbt)	X	X	✓
92.	Mansaka (msk)	✓	X	✓
93.	Mapun (sjm)	✓	✓	✓
94.	Maranao (mrw)	✓	✓	✓
95.	Masbatenyo (msb)	✓	✓	✓
96.	Minamanwa (mmn)	X	X	✓
97.	Negrito	X	X	✓
98.	Palawano, Brooke's Point (plw)	X	✓	✓
99.	Palawano, Central (plc)	✓	✓	✓
100.	Pangasinan (pag)	✓	✓	✓
101.	Parianon	✓	✓	✓
102.	Ratagnon (btn)	✓	X	✓
103.	Romblomanon (rol)	✓	✓	✓
104.	Sama Balangingih (sse)	✓	✓	✓
105.	Sama, Central (sml)	✓	✓	✓
106.	Sama, Southern (ssb)	✓	✓	X
107.	Samal	✓	✓	✓
108.	Sambal (xsb)	✓	✓	✓
109.	Sambal, Botolan (sbl)	✓	X	✓
110.	Sambwangnon	X	X	✓
111.	Sangil (snl)	X	X	✓
112.	Sinama	✓	✓	✓
113.	Sorsoganon, Northern (bks)	✓	✓	✓
114.	Sorsoganon, Southern (srv)	✓	✓	✓
115.	Subanen, Northern (stb)	✓	X	✓

	Language	Sentence List	Word List	Audio Recording
116.	Subanen, Southern (laa)	Х	Х	<u> </u>
117.	Subanon	1	/	✓
118.	Subanon, Kolibugan (skn)	X	X	✓
119.	Sulod (srg)	X	X	✓
120.	Surigaonon (sgd)	✓	✓	✓
121.	Tagabawa (bgs)	✓	✓	✓
122.	Tagakaulo (klg)	✓	✓	✓
123.	Tagalog (tgl)	✓	✓	X
124.	Tagbanwa (tbw)	X	X	✓
125.	Tagbanwa, Calamian (tbk)	✓	✓	✓
126.	Tagbanwa, Central (tgt)	✓	✓	X
127.	Tandaganon (tgn)	X	X	✓
128.	Tausug (tsg)	✓	✓	✓
129.	Tawbuid (twb)	X	X	✓
130.	Tboli (tbl)	✓	✓	✓
131.	Teduray (tiy)	✓	✓	✓
132.	Waray (war)	✓	✓	✓
133.	Waray (war) or Baybayanon (bvy)	✓	✓	X
134.	Yakan (yka)	✓	✓	✓
135.	Yogad (yog)	✓	✓	X



Thesis & Dissertation Abstracts

Ang Morfosintaks ng Nawn Preys sa Biri-Waray

Gina Bernaldez-Araojo

Ang Biri-Waray ay sinasalita sa itaas na bahagi ng Northern Samar partikular sa munisipalidad ng Biri, Northern Samar. Kabilang ito sa mga dayalekto ng Waray-Nortehanon. Malinaw ang malaking epekto ng heyograpikal na lokasyon ng Biri-Waray sa mga mananalita na may halong Bikol-Waray at may baryasyong Waray-Nortehanon. Ang mga naninirahan na malapit at malimit ang transportasyon sa Waray-Nortehanon ay nagsasalita ng Waray-Nortehanon. At ang mga mananalita naman na madalas ang contact sa mga bayan ng Southern Bicol (Gubat, Matnog, at Sorsogon) ay nagsasalita ng Bikol-Waray. Halimbawa dito ay ang salitang waraq 'wala' ng South Sorsogon (McFarland, p. 318). Ang mga mananalita ng Biri-Waray na nakaharap sa South Sorsogon ay gumagamit ng wáras na wáray naman sa mga mananalita na mas malapit sa Waray-Nortehanon. Ang numeral na sayuq 'isa' ng South Sorsogon ay sáyuq rin sa karamihang mananalita ng Biri-Waray na qúsa naman sa mga mananalita na mas malapit

sa Waray-Nortehanon. Ang third person na singular *siya* 'siya' ng South Sorsogon ay *siya* rin sa mga mananalita na nakaharap sa South Sorsogon samantalang *hiya* naman para sa mga mananalita na malimit sa Waray-Nortehanon.

Ang pag-aaral na ito ay naglalahad ng isang komprehensibong istruktura ng gramatika na nakatuon sa katangian ng Nawn Preys (NP). Binubuo ng limang (5) bahagi ang pag-aaral na ito. Sa Tsapter 1, inilalahad ang wikang Biri-Waray bilang fokus ng pag-aaral, layunin at kahalaghan ng pag-aaral, metodoloji, rebyu ng literatyur, at teyoretikal freymwork. Sa pamamagitan ng muling pagrepaso sa mga kaugnay na literetyur, nagabayan ang kasalukuyang pagsusuri na mailahad ang ganap na analisis sa NP ng Biri-Waray. Sa Tsapter II inilalahad ang morfoloji ng nawn sa Biri-Waray. Sa Tsapter III inilahad ang istruktura ng NP. Ang katangian ng NP sa pamamagitan ng pagsusuri sa gamit nito sa istruktura sa Biri-Waray ay makikita sa Tsapter IV. Ang kongklusyon, implikasyon, at rekomendasyon sa naging pagsusuri ay makikita naman sa Tsapter V.

Sa pangkalahatan, inilalahad ng pagsusuring ito hindi lamang sa simpleng pagtanaw sa katangian ng tungkulin ng NP sa konstruksyon ng pangungusap, mayroong malalim na pagsusuri sa pagkakaugnay ng mga elemento ng gramatika sa istruktura.

Bernaldez-Araojo, Gina. (2023). Ang morfosintaks ng nawn preys sa Biri-Waray [Unpublished doctoral dissertation]. Department of Linguistics, University of the Philippines Diliman.



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