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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.

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Editor's Notes

The fifth volume of *The Archive* features papers presented at the 15th Philippine Linguistics Congress (15PLC), which was the culmination of the centennial founding anniversary celebration of the UP Department of Linguistics. Since its establishment on 28 August 2022, the Department continues to be the premier academic institution that focuses on the scientific preservation and promotion of Philippine languages and dialects through teaching, archiving, research, and publication. This mandate is reflected in the Department's goals:

1. To continue developing the Department as the primary center of studying and archiving languages and dialects in the Philippines;

2. To contribute to general and theoretical linguistics based, first and foremost, on the study of languages and dialects in the Philippines;

3. To provide significant, relevant, and direct support in identifying, clarifying, and ultimately solving linguistic problems in the Philippines, especially in education and national communication and integration; and

4. To improve the teaching of the national languages of Asia in accordance with the needs of the Filipino people.

As a celebration of the Department's one hundred years, 15PLC is a clear testament to the achievement of these goals, with the five plenary sessions focusing on the state and development of key research areas of the Department, namely language documentation and description, historical and comparative linguistics, language and culture, Filipino as the national language of the Philippines, and teaching the national languages of Asia. Papers presented at the conference similarly revolved around these key areas.

Representing the breadth of the Department's key research areas are the following papers featured in this issue of *The Archive*: Naidyl Isis C. Bautista's "Examining Cuyonon Motion Events in *Frog, Where Are You?*" on language description; Emmanuel Jayson V. Bolata's "Proto-Modern Astronomy in the Philippines: A History of Words, 10th-19th Century" on historical and comparative linguistics; Miguel Lorenzo J. Tan's "Street Naming and Odonymy in Quezon City" on language and culture; and Kenichiro Kurusu's "*Firipin-go* o *Firipino-go*?: Ang Pangalan ng Wikang Pambansa ng Pilipinas sa Wikang Hapones," Florinda Amparo A. Palma Gil's "Evaluating Consistency Across Beginner and Intermediate Filipino Textbooks for a Model of Word Level Identification" and Norossalam K. Sindatok's "Using Taglish as the Language of Instruction: K-3 Teachers' Experiences in the New Normal" on Filipino as the national language of the Philippines.

For language description, Bautista's research investigates motion events in Cuyonon using the children's story book *Frog, Where Are You?* as the stimulus material. As a follow-up to prior work done on

Cebuano and Tagalog, Bautista argues that Cuyonon behaves similarly to the two languages in encoding MOTION, that is, as a PATH-salient verb-framed language. Bautista admits that with the limited data, the study is not able to take a nuanced approach towards understanding the phenomenon, such as investigating potential overlaps in typological categories. While limited in scope, the study offers further empirical basis for understanding how motion events are encoded in the world's languages.

Focusing on history, Bolata's work on Philippine proto-modern astronomy presents an examination of indigenous astronomical concepts attested by reconstructions from Proto-Austronesian, through the marriage of perspectives from the fields of history and comparative linguistics. It then highlights the development of ethnoastronomy through contact with Sanskrit, Arabic, and Malay speakers, most evident in the Laguna Copperplate Inscription which mentions the word *jyotisha* 'astral science, astrologer.' The study serves as a good reminder of our rich indigenous knowledge systems that continue to exist alongside and perhaps despite the dominance of Western scholarship.

On language and culture, Tan's paper revolves around the practice of place naming in the urban context, focusing on street names (odonyms) in Quezon City. The study presents categories of odonyms based on various themes. It is evident from the identified themes how urban naming practices are still reflective of traditional toponymic strategies. For instance, Tan identifies floral-based odonyms (Kamuning, Anonas, Elm), which can also be observed in traditional Filipino toponyms (Maynila, Antipolo, Bulacan). Ultimately, the study demonstrates that even in the face of massive urbanization and globalization, our unique

cultural practices are still very much embedded in our everyday linguistic landscape.

The final three papers deal with Filipino as the National Language. Kurusu's study focuses on the variation in the Japanese names for Filipino based on books and official documents. The study shows that there are two names used interchangeably to refer to the National Language, namely *Firipin-go* and *Firipino-go*. Kurusu argues that this can be problematic in terms of practical reasons (that is, consistency and searchability of information in the age of the Internet) and more crucially, in terms of language planning, as it is seen to hinder the development and expansion of the National Language. The study demonstrates that a name is more than just a name—labels are crucial, especially when it comes to the discourse on nationalism and identity-making.

Continuing the issue on labels, Palma Gil similarly focuses on the use of variant terms Filipino, Tagalog, and Tagalog/Filipino in textbooks aimed to teach the National Language as a second or foreign language, to determine if learners are indeed being exposed to the same target language. As a secondary goal, she compares the learning materials to understand if learning outcomes, particularly in the domain of vocabulary, are common across countries that teach the Filipino language. The study contributes to the field of language education through the initial step of identifying common vocabulary across textbooks, ultimately aiming to develop teaching materials and proficiency assessments for the Filipino language. This also contributes to the teaching and promotion of the National Language, especially for heritage learners outside the country.

With a similar focus on language and education, Sindatok's study investigates the use of Taglish as the language of instruction (LOI) from Kindergarten to Grade 3 in online classes of a selected multilingual community. Through semi-structured interviews, Sindatok reveals positive and negative effects of the use of Taglish over the mother tongue. Faced with the problem of selecting a single LOI for communities that use multiple languages, Sindatok's study demonstrates how the lingua franca (in this case, a variant of the National Language) is oftentimes the default choice. Such case study demonstrates that the language beliefs and practices of people observed in the lower domains of the home, the school, and the community are intricately tied to language management in higher domains, such as national level language policies.

The diversity of papers in this issue of *The Archive* reflects the different ways in which we can approach the study of language. Moreover, the Philippines, with its high linguistic diversity, offers plenty of opportunities to investigate linguistic phenomena, ranging from structural, historical, interdisciplinary, to applied. With this, the Department, moving forward to the next century, will continue to expand the breadth and depth of the discipline with further research on Philippine languages.

The issue closes with four abstracts from the theses of our recent graduates of Master of Arts in Linguistics—Noah D.U. Cruz's "Ang Pagtatasa sa Sigla ng mga Wika at Diyalekto sa Pilipinas: Kalagayan at Patutunguhan," Johans B. Cruz's "Pagbabalik-Tanaw sa Linkers: Isang Historikal na Pagsusuri sa mga Piling Wika sa Pilipinas," Edward G. Estrera's "Bagobo-Klata: Grammar and Vocabulary," and Dave Ryan Mikhail S. Go's "A Typological Comparison of Tagalog, Malay, Äiwoo, Hawaiian, and Thai."

I wish to thank the editorial team led by Jem Javier, Divine Angeli Endriga, Brian Salvador Baran, James Dominic Manrique, and Victoria Vidal. I also thank the organizing committee and participants of 15PLC, who have demonstrated the richness and vibrance of Philippine linguistics through their research.

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Examining Cuyonon Motion Events in "Frog, Where Are You?"

Naidyl Isis C. Bautista

Abstract

A dominant theme in the children's story book *Frog, Where Are You?* (Mayer, 1969) is the expression of motions (Slobin, 2004), whose patterns vary depending on the language. Talmy (2000) proposed that the world's languages are generally divided into a two-category typology based on whether the core schema is expressed by the main verb (V-languages) or by the satellite (S-languages). In V-languages, the frame event (PATH) is in the verb itself, whereas in S-languages, the MANNER is typically conveyed by the verb and the information about the PATH follows it in a satellite (Rau et al., 2012). Previous research has shown that Tagalog and Cebuano belong to the class of PATH-salient V-languages along with several other Austronesian languages (Huang & Tanangkingsing, 2005). This paper conducted

a preliminary investigation of motion events in Cuyonon through the following steps taken from Rau et al.'s (2012) study on Yami: (a) recognize PATH and MANNER verbs (prototypical and non-prototypical alike) used by the Cuyonon language consultant in his elicitation of the *Frog Story*; and (b) determine how motion events are represented in serial verb constructions. After having analyzed the given narrative data, it can be argued that Cuyonon as good as follows Tagalog and Cebuano in being a PATH-salient V-language, as it also gives greater attention to PATH information as opposed to MANNER. However, categorizing it as a "pure V-language" has yet to be determined. Future studies recommend gathering more *Frog* narratives from other Cuyonon speakers, and to also take into consideration other elicited data containing motion events beyond the children's book.

Keywords: Cuyonon, motion events, linguistic typology, verb-framed languages, serial verb constructions

1 Introduction

The expression of motions is manifested differently depending on the language, following a limited set of structural patterns (Hacımusaoğlu & Cohn, 2022). The classic typology in encoding motion events was proposed by Talmy (2000), who posited that the world's languages made use of two different lexicalization patterns: satellite-framed languages (S-languages), which encode MANNER in the main verb while

PATH is manifested using satellites (i.e., prepositions), and verb-framed languages (V-languages), whose main verbs encode PATH information while MANNER is optionally expressed through adjunct phrases. Slobin (2004) later proposed a third type—equipollently-framed languages (E-languages)—encompassing other strategies in encoding motion events, such as serial verb constructions. Under this type, PATH and MANNER are expressed using elements equal in formal linguistic terms (p. 228).

Previous research on Austronesian languages has shown that Philippine languages Tagalog and Cebuano are categorized as V-languages, and that Austronesian languages in general are PATH-salient in their expressions of motion events (Huang & Tanangkingsing, 2005). Visual narratives like Mayer's (1969) *Frog Stories* have been found to be a useful tool in eliciting and examining motion events and understanding how languages may vary from each other in systemic ways.

Thus, this paper, through the elicitation of *Frog, Where Are You?* (Mayer, 1969), conducted a preliminary investigation of lexicalization patterns of motion events in Cuyonon. Among the paper's objectives are to determine the following: (1) whether the findings can support the claim that Austronesian languages are PATH-salient; (2) whether Cuyonon behaves like Tagalog and Cebuano, and establish if there are instances that set it apart; (3) whether non-prototypical PATH or MANNER verbs are employed by the language; and (4) whether Cuyonon makes use of serial verb constructions.

The paper is organized into four succeeding sections: in Section 2, we give a theoretical background on the semantic typology of motion events. This includes an explanation of Talmy's (2000) two-way typology and

the proposal of a four-way typology from Huang and Tanangkingsing (2005), which is applied to the study of Austronesian languages. Then, in Section 3, we explain the methodology and provide the reader with information on Cuyonon and how it was analyzed. The preliminary analysis is tackled in Section 4, which divided the elicited data into three major categories: (1) clauses that used prototypical PATH verbs; (2) clauses that used non-prototypical PATH verbs; and (3) clauses that used serial verb constructions, involving the combination of MANNER # PATH verbs. Finally, in Section 5, we give our concluding remarks and provide recommendations for future studies.

2 Encoding Motion Events: A Semantic Typology

In its most basic sense, motion events are situations containing an object moving through space with respect to another object (Talmy, 2000). These motion events typically contain four basic components: (1) the FIGURE, which is characterized as the moving object or entity; (2) the GROUND, or the locational anchor relative to which the movement is conceptualized; (3) the PATH, which is defined as either the path followed by the FIGURE with respect to another entity, or the site it occupies; and, finally, (4) the MOTION itself. In addition to the four components, co-events like MANNER—how the action is carried out—and CAUSE—that which gives rise to action—may also be incorporated into the linguistic encoding of motion events (Barnabé, 2017; Talmy, 2000, p. 25), as seen in Table 1.

In the four examples, the FIGURE is the *pencil* and the GROUND is the *table*. The PATH is indicated through closed-class grammatical units

Table 1. Semantic Components in Motion Events in English (Talmy, 2000, p. 26)

	Manner	**Cause**
Motion	(1a) The pencil rolled off the table.	(2a) The pencil blew off the table.
Locatedness	(1b) The pencil lay on the table.	(2b) The pencil stuck on the table (after I glued it).

off (PATH) and *on* (SITE). Examples (1a) and (2a) express MOTION, while those in (1b) and (2b) show LOCATION. We also see the difference in terms of MANNER and CAUSE: the verb *rolled* in (1a) is categorized as a MANNER verb with the way it describes how the pencil moved down from the table, while *blew* in (2a) is a CAUSE verb as it implies that the FIGURE moved from the GROUND by another CAUSE instead of it moving in that MANNER by itself (Rau et al., 2012; Talmy, 2000).

With space being part of the cognitive domain, motion events may be construed, conceptualized, and encoded differently depending on the language, and are often grounded in typological characteristics of morphosyntax and lexicon (Barnabé, 2017; Huang & Tanangkingsing, 2005; Montero-Melis, 2021; Slobin, 2004). Talmy (2000) proposed that the world's languages are generally divided into a two-category typology, in which motion is analyzed into a set of semantic components, and languages are categorized depending on how they package these linguistic components into linguistic forms (Huang & Tanangkingsing, 2005). The Talmian typology refers then to two perception processes: satellite-framed languages (S-languages) and verb-framed languages (V-languages).

In S-languages, the MANNER of MOTION is characteristically encoded through the verb's semantics while information on its PATH follows the verb in a satellite (Beavers et al., 2010). This is illustrated in the English examples: *The dog ran* (MANNER verb) *across* (PATH satellite) *the street*; and *The bird flew* (MANNER verb) *into* (PATH satellite) *the room* (Barnabé, 2017; Rau et al., 2012). We observe that the MANNER is encoded as a main verb, while the PATH functions as a satellite, typically expressed in a prepositional phrase. In this category, the representation of space is considered through the embodied simulated act of MOTION (Barnabé, 2017). Satellite-framed languages include Germanic languages, Slavic languages, Ojibwa, and Warlpiri (Huang & Tanangkingsing, 2005, p. 309).

V-languages, on the other hand, encode the PATH of MOTION in the main verb, as found in the French example *L'oiseau est entré dans la pièce* 'The bird flew into the room' (Barnabé, 2017). In the verb *est entré* 'entered; flew into,' there is only information on the PATH, and MANNER is typically not shown. Only in cases when the MANNER is at issue is the MANNER of motion expressed, usually added as a separate adverbial phrase, adjunct clause, or satellite (Barnabé, 2017; Beavers et al., 2010; Rau et al., 2012).

Let us observe the following sentence: *L'oiseau est entré dans la pièce en volant* (lit. 'The bird entered the room flying'). The V-language speaker may suspect that there is something wrong with the bird's ability to fly, and could assume the bird is hurt. Hence, the need to mention the manner of action *en volant* (Barnabé, 2017). Examples of verb-framed languages are Romance languages, Arabic, Japanese, Tamil, and Polynesian among others (Huang & Tanangkingsing, 2005, p. 309).

Research on motion events in the past primarily focused on Romance and Germanic languages, which express MANNER and PATH in the verb and in a nonverbal constituent, merely doing so in opposite ways (Huang & Tanangkingsing, 2005). However, Croft (2003) observed that apart from asymmetric verb and satellite framing strategies for encoding motion events, there also exists a range of symmetric strategies such as the serial strategy, the double coding strategy, and the coordinate strategy. Such strategies can be found in languages like Mandarin, the Slavic languages, and the Papuan language Amele, respectively. Because other languages make use of different strategies in encoding these events, Slobin (2004 in Rau et al., 2012) extended Talmy's (2000) typology to include a third class, which he referred to as equipollently-framed languages (E-languages). In this language type, both PATH and MANNER are expressed in the main verb by equivalent grammatical forms (Slobin, 2004, p. 249). Languages with serial verb constructions—in which one verb may encode MANNER while the other may encode PATH (Beavers et al., 2010)—are commonly accommodated in this language class.

It is important to note that although cross-linguistic variation in encoding motion events has been reduced to a two- or three-way typology, Beavers et al. (2010), as well as other researchers, have seen that "an increasing number of observations that putative S-framed languages often show V-framed behavior and vice versa, and that many putatively E-framed languages show S- and/or V-framed behavior outside of multiple verb constructions" (p. 333). This suggests that the classes may not be as straightforward as they seem to be and that they may be further subdivided, for example, into differences in preposition or verb inventories (Bohnemeyer, et al., 2007, as cited in Beavers et al., 2010).

In the context of Austronesian languages, data based on the Frog narratives from six Western Austronesian languages (WAN)—Cebuano, Malay, Saisiyat, Squliq Atayal, Tagalog, and Tsou—led Huang and Tanangkingsing (2005) to propose a four-way typology in the encoding of motion events and how the six languages can be classified under them (Table 2). In addition, they examined how the dichotomy between PATH and MANNER verbs played out following these patterns.

Table 2. Patterns in Encoding Path and Manner Verbs Adapted from Talmy and Slobin (Huang & Tanangkingsing, 2005, p. 311)[1]

Typology	Characteristics	Languages
Satellite-framed language	MANNER verb + PATH satellite	None from the six WAN
Verb-framed language	PATH verb + MANNER adjunct	Cebuano, Malay, Saisiyat, Squliq Atayal, Tagalog[2]
Macro-event language	[MANNER prefix + PATH root] verb	Tsou[3]
Serial verb language	PATH verb # MANNER verb or MANNER verb # PATH verb	None from the six WAN

[1]Following Huang and Tanangkingsing (2005, pp. 310–311), the symbol + in "X + Y" indicates that constituent order should be ignored. The use of # on the other hand indicates that in "X # Y," X precedes Y.

[2]Huang and Tanangkingsing (2005, p. 337) note that the five languages present V-framed features in varying degrees: from being 'pure verb-framing languages' (Tagalog and Cebuano), to an attenuated version of the pure form (Malay), to a version which makes use of compound MANNER and PATH combinations (Saisiyat), and that which exhibits features of S-languages in motion event descriptions (Squliq Atayal).

[3]Although Tsou was categorized as a macro-event language via the use of lexicalized compound MOTION verbs that conflate both MANNER and PATH, it shares features with V-languages through the relatively high use of PATH verbs alone (p. 316).

Based on Table 2, Huang and Tanangkingsing (2005) found that all six languages showed greater attention to PATH information than to MANNER (five of six are classified as V-languages, while Tsou is labeled as a macro-event language), which allowed them to hypothesize that Proto-Austronesian was likely PATH-salient.

Focusing on Philippine languages, Tagalog and Cebuano belong to verb-framing languages (PATH verb + MANNER adjunct) in the way they conveyed path through a main finite verb while MANNER, if expressed, is indicated through a subordinate expression. In describing the emergence of the owl in the Frog story, it was found that Cebuano and Tagalog consistently employed only the PATH verb 'to come out,' without the need of using a MANNER verb to introduce the owl. This is illustrated in Examples (1) and (2) (Huang & Tanangkingsing, 2005, p. 318).

(1) Tagalog
Bigla-ng l-um-abas ang kuwago sa loob ng kahoy.
Suddenly-LNK AF-exit ANG owl LOC inside of tree[4]
'Suddenly, the owl came out from inside the tree.'

(2) Cebuano
Unya ang owl ni-gawas gikan sa kahoy.
Then ANG owl AF-move.out be.from LOC tree
'Then the owl came out from the tree.'

Huang and Tanangkingsing (2005) likewise stated that other aspects of V-languages include the propensity of taking verbs that seem to appear

[4]The Leipzig Glossing in these examples are directly cited from Huang and Tanangkingsing (2005).

as MANNER verbs (such as *run*, *walk* and *fly*) and interpreting them as PATH verbs. Such verbs whose interpretations imply both MANNER and PATH are defined as non-prototypical MANNER or PATH verbs, based on their conceptual saliency, which is determined by the "informativeness (that is, not the default setting) of the PATH or MANNER interpretations of the sentence containing the verb in question" (Rau et al., 2012, p. 8).

In this paper, we distinguish the verbs in Examples (3) to (5) as being non-prototypical PATH verbs since the additional implied information on PATH (i.e., the trajectory of the FIGURE with respect to the GROUND) appears to be more informative than the default MANNER. Thus, "to fly" in S-languages like English is inferred by V-languages as having additional PATH expressions "to fly *away*," while "to walk" or "to run" is "to walk/run *away*."

(3) Cebuano (Huang & Tanangkingsing, 2005, p. 326)
Dayon ang owl ning-lupad
Then ANG owl AF-fly
'Then the owl flew *away*.'

(4) Cebuano (p. 326)
Gi-kuha niya ang usa ka baki' ug ni-lakaw na sila.
PF-take 3SG ANG one LNK frog and AF-walk PFV 3PL
'He took one frog and they walked *away*.'

(5) Tagalog (p. 326)
Tumakbo ito nang matulin at ini-hulog ang bata ng usa
AF-run this ASP fast and PF-fall ANG child OBL deer
sa isa-ng putikan.
LOC one-LNK muddy-place
'The deer ran *away* fast and tossed the child into the mud.'

Because MANNER verbs are not an obligatory component in V-languages, they are largely used to present descriptive information in identifying new referents within a discourse. Let us observe the Tagalog example in (6) (Huang & Tanangkingsing, 2005, p. 332).

(6) Tagalog
a. *Pero-ng lumabas… Naku ano ba ito? …*
But-ANG AF-move.out INTRJ what Q this
'But what came out were … Oh, what were these?'
b. *Di ko alam ano-ng tawag diyan sa Tagalog*
NEG 1SG know what-ANG call there SA Tagalog
'I don't know how to call these in Tagalog.'
c. *O=di hala sige hanap pa rin sila nang hanap. Nandyan*
So INTRJ find still also still 3PL ASP find There
pa rin yong mga= ano mga= XXX basta may mga
still also that PL what PL PRTCL EXT PL
lumilipad.[5]
AF-fly
'But what came out were … Oh, what were these?'

[5] *XXX* indicates an unintelligible utterance.

Based on the extract, (6b) introduces a new but unidentified FIGURE or referent, which the narrator describes using the MANNER verb 'flying' in (6c).

In an attempt to support their claim on Austronesian languages, this paper intends to conduct a preliminary investigation of motion events in Cuyonon. In particular, it aims to recognize the patterns used to encode PATH and MANNER verbs. In addition, it will reflect on the following questions: Is Cuyonon a V-language like Tagalog and Cebuano in the way it encodes motion events? Is it PATH-salient like most Austronesian languages? Does the language make use of serial verb constructions? Does it make use of non-prototypical PATH or MANNER verbs?

3 Cuyonon Motion Verbs in "Frog, Where Are You?"

The corpus of this paper is the narration in Cuyonon of the wordless picture book *Frog, Where Are You?* (Mayer, 1969). Mayer's *Frog Stories* are common stimulus prompts used in eliciting naturalistic and narrative data from language consultants. Among the dominant themes of *Frog Stories* is the expression of motion events. The data was narrated by Ryan Ibañez, a male Cuyonon speaker in his late twenties.[6] The elicitation was recorded online via Zoom, with the narration proper having a run time of 10 minutes and 16 seconds. Transcription and translation of elicited data—specifically the utterances containing motion clauses—was done on a separate session.

[6]The data elicited was likewise validated at a later date by female native Cuyonon speaker, Elyn Bagalay.

Frog, Where Are You? is about a young boy who keeps a pet frog in a jar. As he sleeps one night, the frog escapes from the jar. The boy wakes up the next day to find the frog gone. He then decides to search for it, and so he and his dog head out of the house and into the woods. They encounter a gopher in its burrow and a beehive on top of a tree. The dog shakes the beehive off the tree. It falls to the ground and the bees chase after the dog. The boy climbs a tree and inspects a hole. An owl emerges from the hole and the boy falls over. The boy escapes the owl by climbing onto a rock. He grabs onto the branches behind the rock for support, which turn out to be the antlers of a deer. The deer rises up and runs off towards a cliff, bringing the boy on its head. The deer stops right at the edge and the boy is hurled off the deer's antlers, and with his dog (who ran after the deer), fall onto a pond below. The boy and his dog hear some noises behind a large tree trunk. They look behind it and find their frog with its frog friends. The boy picks his frog up and they head back home, waving goodbye to the other frogs.

Cuyonon is a language that belongs to the West Visayan branch of the Greater Central Philippines subgroup (Zorc, 1977). The language is the most dominant among Palawan's eight indigenous languages (San Juan, 2006), and is largely spoken in the province of Palawan, specifically in the Cuyo Islands to the northwest of the Palawan mainland, the coastal area around Puerto Princesa, as well as in the islands of Culion and Busuanga.

During the early twentieth century, the out-migration surge from Cuyo into the Palawan mainland in search for better economic opportunities (Eder, 2004) resulted in Cuyonon becoming the province's lingua franca (Lee, 2007). This did not last, however, as the decades follow-

ing the Second World War brought forth an increase in immigration from other regions into Palawan (Eder, 2004), which eventually led to Tagalog's linguistic spread, replacing Cuyonon as the lingua franca of the entire province. Despite the decline in Cuyonon language usage, with speakers often preferring to employ Tagalog and English in the interest of practicality and modernity (2004), it is by no means disappearing (see Nolledo-Montaño, 2021). In fact, the latest data as seen in the 27th edition of Ethnologue states that the speaker population of Cuyonon ranges from 10,000 to 1 million, and that its vitality status is 'stable,' which means that, although all children learn and use the language in the home and community, Cuyonon is not being sustained by formal institutions (Eberhard et al., 2024).

For this paper, we analyze Cuyonon as having ERGATIVE characteristics, which means that the S (INTRANSITIVE SUBJECT) and O (TRANSITIVE OBJECT) are marked in the same manner as the ABSOLUTIVE case, while the A (TRANSITIVE SUBJECT) is treated differently, being marked as the ERGATIVE case.[7] We also distinguish morphologically or syntactically marked case forms—such as ERGATIVE, ABSOLUTIVE, etc.—from semantically and morphosyntactically marked case relations—such as PATIENT, AGENT, among others. Cuyonon is also right branching, which means that the most important element is always found in the leftmost position. Like majority of Philippine languages, Cuyonon is characterized by a highly developed focus system (Huang & Tanangkingsing, 2005; Kaufman, 2024).

[7]This contrasts with the NOMINATIVE-ACCUSATIVE alignment, in which the S and the A have the same form ('NOMINATIVE case'), while the O is marked differently ('ACCUSATIVE case').

Although a typical characteristic of ERGATIVE or mixed ERGATIVE languages is that it is more PATIENT-oriented rather than AGENT-oriented (De Guzman, 1988, p. 323), we have observed that majority of the gathered motion clauses are in the ACTOR FOCUS (AF), which likewise reflect Huang and Tanangkingsing's (2005) observation of Cebuano clauses. This is likely attributed to the object of study, as motion verbs do not typically require OBJECTS to complete their meaning. We will take a closer look at them in Section 4.

4 A Preliminary Analysis

As mentioned in the previous section, PATH and MANNER verbs are determined by their potential realization of the four components: FIGURE, GROUND, PATH, and MOTION (Rau et al., 2012). The difference between the two is that PATH verbs encode a clear trajectory of the FIGURE with respect to the GROUND (e.g., *enter*, *exit*, *ascend*, *descend*, and deictic verbs *come*, *go*) (Huang & Tanangkingsing, 2005). MANNER verbs, on the other hand, show how the FIGURES carry out the MOTION, from encoding general MANNER like walk, run, and swim, to expressing specific distinctions, like *limp*, *sprint*, and *swoop* (Slobin, 2004). Some CAUSED-movement verbs, which express PATH information implicitly, like *put*, *pick*, *take*, *carry*, are also considered within the category of MANNER verbs, as seen in the sentence: '*He put* (CAUSE) *the apple* (FIGURE) *on the table* (GROUND).' (Huang & Tanangkingsing, 2005; Rau et al., 2012).

The elicited clauses containing motion verbs in Cuyonon—fourteen in total—were examined and grouped according to the following pat-

terns: prototypical PATH verb (P), non-prototypical PATH verb (NPP), and verb serializations (whether P#M or M#P).

4.1 Clauses Containing Prototypical Path (P) Verbs

We begin with the elicited clauses that contain MOTION verbs showing the prototypical pattern for PATH (Examples (7) to (13)). Examples (7) and (8) show the MOTION verb in bold text that contains a FIGURE moving to the GROUND, encoded as a GOAL (i.e., the direction towards which the action of the verb moves). The GROUND information is encoded by the locative marker *sa*, as seen in Example (7): *agsaka sa pono*, 'climbed up the tree;' and Example (8): *agabalik den sa anang balay… sa pono*, 'went back home… to the tree.'

(7) *Ang bata gali animan adora, agsaka sa pono* (Ryan Ibañez – Frog Story, 5:40).[8]
Ang bata gali animan adora
ABS child INTRJ so AF.PFV.INTR.vanish
ag-saka *sa pono*
AF.PFV.INTR-climb.up OBL tree
'Ang bata pala, kaya nawala ay umakyat sa puno.'
'Anyway, the boy, the reason he vanished was that he climbed up the tree.'

[8] See List of Abbreviations in Section 7.

(8) *Tapos adora ren ang gokgok agabalik, den sa anang balay, ay, sa pono* (7:13).
Tapos adora *ren* *ang gokgok*
then AF.PFV.INTR.vanish already ABS owl
aga-balik *den* *sa* *ana=ng* *balay* *ay*
AF.PROG.INTR-return already OBL 3SG.GEN=LNK house INTRJ
sa *pono*
OBL tree
'Tapos, nawala na ang kuwago, bumalik sya sa kanyang bahay, ay, sa puno.'
'And then, the owl had gone, it went back home, I mean, to the tree.'

For Example (9), it is analyzed that the GROUND functions as the location as opposed to being the GOAL as we have seen in the first two examples.

(9) *Andang malalagpakan dagi ang … midio tobig* (8:48).
Anda=ng ***ma-la~lagpak-an*** *dagi* *ang midio* *tobig*
3PL.ERG=LNK IPFV.TR~fall-LF DEM ABS somewhat water
'Malalagpakan nila ang itong … parang tubig.'
'Where they will fall on is this… pool-like place.'

This is because the focus of the clause in Example (9) is the water on which the boy and the dog will fall into (marked by the ABSOLUTIVE *ang*), and no longer the AGENTS performing the action of falling. Perhaps the difference in transitivity, with Examples (7) and (8) being considered as having intransitive verbs (marked by the verbal affixes *ag-* and *aga-*)

while Example (9) shows a transitive verb (marked by the affix *-an*), contributes to this distinction of GROUND.

The next examples consist of bare verbs, which provide no elaboration of PATH beyond the inherent directionality of the verb itself (Huang & Tanangkingsing, 2005, p. 323). The MOTION verb in Examples (10) and (11)—*olog*—is a downward MOTION description of 'to fall down.' While a LOCATION is indicated in Example (10) (*sa bintana*, 'window'), it does not function as the GROUND as it is not the LOCATION towards which the MOTION is directed. Thus, we observe that GROUND information may not always be encoded in V-languages.

(10) ***Naolog*** *ang tio alin doto sa bintana* (3:13).
Na-olog ang tio alin doto sa bintana.
AF.PFV.INTR-fall ABS dog from there OBL window
'Nahulog ang aso mula doon sa bintana.'
'The dog fell down from the window.'

(11) *Tapos, dato* ***mamaolog*** *sandang darwa i'ang tio* (8:33)
Tapos dato ma~ma-olog sanda=ng darwa i?ang tio.
then DEICT AF.IRR.INTR~fall 3PL.ABS=LNK two ERG dog
'Tapos, ayun mahuhulog silang dalawa nung aso.'
'And so, then, they will fall, both he and the dog.'

The same bare verb is also used in Examples (12) and (13)—*paloa*, 'to move out/emerge.' While it does not denote a downward MOTION like in the two bare verbs in Examples (10) and (11), it denotes a clear PATH which begins from a SOURCE LOCATION—like the hornets' nest in Example (13)—and indicates a continuing MOTION beyond (Slobin, 2004).

(12) *Mi golpi agloa* (4:53).
Mi golpi ***ag-loa***.
EXT suddenly AF.PFV.INTR-emerge
'May biglang lumabas.'
'Something suddenly appeared.'

(13) *Di agroloa ang mga torong* (5:55).
Di ***ag-ro-loa*** *ang mga torong.*
SO AF.PFV.INTR-PL-emerge ABS PL hornet
'Edi nagsilabasan ang mga putakti.'
'So the hornets emerged.'

Example (12) also indicates a MANNER adjunct *golpi* 'suddenly' which, preceding the verb, specifically refers to the sudden emergence of the FIGURE itself (introduced by the EXISTENTIAL construction *mi*). As explained by the language consultant, if the distribution of the adverb is found after the verb, as in *Mi agloa i' golpi*, the adverb will be referring to the utterance as a whole, and not to the individual elements of the sentence. Thus, it should no longer be specifically modifying the emergence of the FIGURE ("All of a sudden, something appeared"). This claim, however, requires further study and more examples as it does not seem to apply to all adverbs of manner. As stated by another consultant, the adverb *pirmi* 'always' does not shift the meaning of a sentence regardless of its placement (e.g., *Ang tio pirming kaen*—'Ang aso ay palaging kumakain,' 'The dog is always eating' vs. *Ang tio agakaen i' pirmi*—'Ang aso ay kumakain palagi,' 'The dog is always eating'). However, a change of meaning is observed in the switching of positions of the adverb *maite* 'little,' as seen in *Agkaen i' maite*—'Kumain ng konti,' 'He/she ate a little,' and *Kamaite agkaen*—'Muntik kumain,' 'He/she almost ate.' That the

additional examples do not fall under MOTION verbs is another reason for us to delve deeper into this topic in future studies.

4.2 Clauses Containing Non-prototypical Path (NPP) Verbs

We move on to elicited clauses featuring non-prototypical PATH verbs in Cuyonon (Examples (14) to (16)). As mentioned in Section 2, MANNER verbs that may be interpreted as containing information on PATH, as seen in Tagalog and Cebuano, will be distinguished as non-prototypical PATH verbs, as it is the additional information on PATH that seems to be more informative. We have found three such examples in Cuyonon, which will be discussed below. The conveyed PATH is emphasized through italics in the English gloss.

Example (14) is a coordinate sentence, with the first part featuring a PATH verb (*naolog*) while the second part presents a MANNER verb (*agaraboab*).

(14) *Naolog ang balay i'ang torong, animan dato ang mga torong midio sa agaraboab* (5:26).
Na-olog *ang balay* *i?ang torong* *animan dato* *ang mga*
AF.PFV.INTR-fall ABS house GEN hornet so DEICT ABS PL
torong *midio* *sa* ***aga-raboab***.
hornet somewhat OBL AF.PROG.INTR-scatter
'Nahulog ang bahay ng mga putakti kaya, ayun, parang nagsikalat ang mga putakti.'
'The hornets' nest fell, which is probably why they (the hornets) scattered *about*.'

Here, the hornets, which function as the FIGURE, disperse all around an implied GROUND ("air"). Thus, the MANNER verb *agaraboab* 'scattered' expands its definition to incorporate PATH ("scattered about, all around"), emphasizing the hornets' scattered directions.

Example (15) may be classified as a CAUSED-movement MANNER verb, where the FIGURE's ("boy") MOTION ("thrown") was caused by the deer.

(15) *Midio tana ingpilak i'ang osa* (8:29).
Midio tana ***ing-pilak*** *i?ang osa.*
somewhat 3SG.ABS PF.PFV.TR-throw ERG deer
'Para siyang tinapon ng usa.'
'It's as if the deer tossed him (*over the cliff*).'

We observe, however, that the affix indicates a PATIENT-FOCUS verb (through the verbal affix *ing-*) because the construction is transitive. The AGENT or the TRANSITIVE SUBJECT in this example is the deer while the OBJECT or PATIENT of the verb *ingpilak* is the FIGURE *tana* 'him.' The verb also suggests PATH as the boy and his dog were thrown over the cliff and into the pond below.

For Example (16), the verb *inggogokod* 'chase after' is classified as encoding both MANNER of MOTION and PATH in its semantics, as it provides us with information on the direction of MOTION and the way the FIGURE moves. As Example (16) illustrates, one FIGURE ("hornets," which function as the transitive subject in the sentence) is moving behind a second FIGURE ("dog," the transitive object). Apart from depicting the PATH of MOTION (the hornets' intent to keep pace with the dog), the verb also encodes the speed in which the hornets move.

(16) *Inggogokod i'ang mga torong ang tio* (6:27).
Ing-go~gokod *i?ang mga torong ang tio.*
PF.IPFV.TR~chase.after ERG PL hornet ABS dog
'Hinahabol ng mga putakti ang aso.'
'The hornets were chasing *after* the dog.'

In all three examples under this section, it is the information on PATH that appears to be more informative than the MANNER. Thus, based on conceptual saliency, we classify them as non-prototypical PATH verbs.

4.3 Clauses Containing M#P Verbs in Serial Verb Constructions

The remaining four examples exhibit peculiar constructions, which we may possibly classify as a type of serial verb construction. As explained by Aikhenvald (2006, p. 1), a serial verb construction is defined as a sequence of verbs acting together as a single predicate. Such a construction does not contain any overt marker of coordination, subordination, or syntactic dependency of any kind, and is conceptualized to define a single event. The serial verb constructions in this paper exhibit the MANNER verb # PATH verb (M#P) pattern, where PATH is added to support the MANNER of MOTION.

However, because Cuyonon is a Philippine language, it likely follows the tendency of Tagalog and Cebuano to allow the occurrence of multiple verbs within a single clause through verb subordination as opposed to the straightforward serialization or compounding of verbs as seen in other WAN languages (Huang & Tanangkingsing, 2005, p. 321). We

argue that verb subordination is a kind of serial verb construction in that the verbs within a clause are all necessary to define a single event.

Example (17) begins by describing the way the deer moves—through the MANNER verb *agdalagan*, 'it ran'—before it specifies the direction. Within this serial verb construction, we will refer to the first verb, which encodes MANNER, as the 'main' verb, seeing as it is the head of the construction and appears at the leftmost position. The secondary verb will thus be called the 'subordinating' verb. In the sentence below, the subordinating verb—*papakon*, from the verb 'to go' affixed with *pa-*—encodes the PATH. This example demonstrates that the use of a MANNER verb alone is not sufficient in conveying the idea of the MOTION's trajectory. We can also argue that the removal of the subordinating verb could also give a different meaning to the sentence (i.e., 'running alongside the cliff,' implying the AGENT is already on the cliff), rendering it 'incomplete.'

(17) *Agdalagan tana papakon sa pangpang* (8:19).
Ag-dalagan *tana* ***pa-pakon*** *sa* *pangpang.*
AF.PFV.INTR-run 3SG.ABS PA-go OBL cliff
[MANNER] [PATH]
'Tumakbo siya (ang usa) papunta sa bangin.'
'It (the deer) ran towards the cliff.'

Examples (18) and (19) are very interesting because they demonstrate that adverbs of manner in Cuyonon may sometimes take on verbal inflections and function as a verb (through the affix *ag-*). Since, semantically, they are not verbs, they are serialized with other verb roots, as seen in Example (18) *agamatamat i' palagiaw paloa* 'slowly escaped outwards;' and Example (19) *aggolpi … loa* 'suddenly emerged.' Distinctively from

the other clauses within this category, Example (18) employs three verbs within a single construction—the first two of which express MANNER, while the third, affixed with *pa-*, expresses PATH.

(18) *Ang pangka agamatamat i' palagiaw loa sa anang garapon* (1:29).
Ang pangka ***ag-amat-amat i?*** ***palagiaw*** ***paloa*** *sa*
ABS frog AF.PFV-slow GEN escape PA-emerge OBL
[MANNER] [MANNER] [PATH]
ana=ng *garapon.*
3SG.GEN=LNK jar

'Ang palaka ay unti-unting tumakas palabas sa kanyang garapon.'
'The frog slowly escaped outwards from the jar.'

(19) *Aggolpi sigoro dia loa ang gokgok* (6:10).
Ag-golpi *sigoro dia loa ang gokgok.*
AF.PFV-sudden maybe DEM emerge ABS owl
[MANNER] [PATH]
'Bigla sigurong lumabas itong kuwago na to.'
'Maybe this owl just suddenly emerged.'

The two examples above confirm that adverbs with verbal morphology also encode MANNER, while the succeeding subordinating verb shows not only the PATH but the LOCATION of the event itself. For Example (18), the FIGURE ("frog") moves to an implied GROUND, which is outside of the jar. The same is true for Example (19), where the FIGURE ("owl") moves out from its hollow.

The last of the elicited clauses—Example (20)—shows the implied MANNER verb *ingdara* 'brought,' an example of a CAUSED-movement

verb, is serialized with *pa-* affixed PATH verbs *paalin* 'leave' and *paoli* 'go home,' both of which express direction.

(20) *Ingdara na ren anang pangka paalin … paoli sigoro* (10:47).
Ing-dara *na* *ren* *ana=ng* *pangka* ***paalin***
PF.PFV.TR-bring 3SG.ERG already 3SG.GEN=LNK frog PA-leave
[MANNER] [PATH]
paoli *sigoro*
PA-go.home maybe
[PATH]
'Dinala nya na ang kanyang palaka paalis … pauwi siguro.'
'He took his frog with him and left … to go back home, most likely.'

Taken together, the whole meaning of the verb *ingdara* changes into 'to take away' and 'to bring home' respectively. As the main verb indicates MANNER and the subordinating verb indicates PATH, we can also classify example (20) as having the M#P pattern.

To summarize, we observe that this type of serial verb construction in Cuyonon demonstrates verb subordination which forms a V_{MANNER} + *pa-*PATH construction. This type of serial verb construction likewise occurs in Tagalog and Cebuano (Examples (21)-(22)), even showing the possibility of switching the verbs to form a P#M construction (Example (23)), as seen in examples from Huang and Tanangkingsing (2005, p. 321). The construction of Example (23), however, did not come up in the elicited data in Cuyonon and would be good to investigate in future studies.

(21) Cebuano
Unya ni-lakaw ang deer pa'ingon didto sa bangin.
Then AF-walk ANG deer PA-go there LOC cliff
[MANNER] [PATH]
'Then the deer walked toward the cliff.'

(22) Tagalog (elicited)
L-um-utang ang bote pa-labas ng kweba.
AF-float ANG bottle PA-out LOC cave
[MANNER] [PATH]
'The bottle floated out of the cave.'

(23) Tagalog (elicited)
L-um-abas ang bote na pa-lutang galing sa kweba.
AF-out ANG bottle REL PA-out from LOC cave
[PATH] [MANNER]
'The bottle floated out of the cave.'

5 Moving Forward

The study has thus far looked into the Cuyonon motion verbs taken from one narrative data only. Summarizing the elicited clauses into the four basic components of motion events will give us Table 3.

We have seen that the majority or half of the elicited sentences contain prototypical PATH verbs. This is followed by serial verb constructions that demonstrate verb subordination, and finally, with verbs that present non-prototypical PATH verbs whose PATH information is more informative than the default MANNER interpretation. Regardless of the type of MOTION verb employed, the FIGURE is almost always encoded,

Table 3. Summary of Elicited Motion Verb Clauses in Cuyonon

	Motion verb	Type	Figure	Ground
7.	*agsaka*	PATH	Yes (*bata*, 'boy')	Yes (*pono*, 'tree')
8.	*agabalik*	PATH	Yes (*gokgok*, 'owl')	Yes (*balay/pono*, 'house/tree')
9.	*malalagpakan*	PATH	Yes (*anda*, 'they')	Yes (*tobig*, 'water')
10.	*naolog*	PATH	Yes (*tio*, 'dog')	No
11.	*mamaolog*	PATH	Yes (*bata*, *tio*, 'boy,' 'dog')	No
12.	*agloa*	PATH	No	No
13.	*agroloa*	PATH	Yes (*torong*, 'hornets')	No
14.	*agaraboab*	Non-prototypical PATH	Yes (*torong*, 'hornets')	No
15.	*ingpilak*	Non-prototypical PATH	Yes (*tana*, 'him' - boy)	No
16.	*inggogokod*	Non-prototypical PATH	Yes (*torong*, 'hornets')	No
17.	*agdalagan*; *papakon*	Serial M#P	Yes (*tana*, 'it' - deer)	Yes (*pangpang*, 'cliff')
18.	*agamatamat*; *palagiaw*; *paloa*	Serial M#P	Yes (*pangka*, 'frog')	No
19.	*aggolpi*; *loa*	Serial M#P	Yes (*gokgok*, 'owl')	No
20.	*ingdara*; *paalin*, *paoli*	Serial M#P	Yes (*pangka*, 'frog')	No/Yes (*paoli*, 'homeward')

which should not come as a surprise granted that most of the sentences examined contained verbs in the ACTOR FOCUS. That GROUND components are not as encoded as the FIGURE in Cuyonon coincides with the characteristic of V-languages as containing fewer GROUND elements per

clause. If present, they are more likely to co-occur with PATH verbs than non-prototypical PATH/MANNER verbs.

With these preliminary results, we can reason that Cuyonon could as good as follow Tagalog and Cebuano in being a PATH-salient V-language since the given data leans more towards providing PATH information than MANNER, but whether or not Cuyonon should be classified as a 'pure V-language' has yet to be investigated as data from one narrative cannot be considered sufficient—nevertheless, it is a good starting point.

Comparing the elicited data with the Tagalog and Cebuano examples from Huang and Tanangkingsing's (2005) study, we observe the following similarities:

(a) Examples (7) to (11) and (13) contain one PATH verb only with no need for any MANNER adjunct, while Example (12) contains both a PATH verb and a MANNER adjunct;

(b) Examples (14) to (16), on the other hand, all employ non-prototypical PATH verbs, which are in effect interpreted as being PATH salient;

(c) Examples (17) to (20) use a type of serial verb construction in the form of verb subordination following the formula V_{MANNER} + *pa*-PATH (M#P).

Based on the elicited data, what sets Cuyonon apart from Tagalog and Cebuano is its use of adverbs of manner with verbal morphology. We have also yet to confirm if MANNER can be used as descriptive information to describe new referents within a discourse, and if it is possible in Cuyonon to have P#M serializations as seen in both Cebuano and

Tagalog, or if non-prototypical MANNER verbs exist. The placement of adverbs and if they can in reality change the meaning of an entire clause likewise needs further examination.

For further studies, it is highly recommended to gather more *Frog* narratives from other Cuyonon speakers, and to also take into consideration other elicited data containing motion events beyond *Frog Stories*. It is also recommended that the data be compared to other Philippine languages either of the same subgroup as Cuyonon or those within geographical proximity to it. Moreover, in light of the growing recognition that most languages exhibit more than one of the proposed typological categories (see Beavers et al., 2010), as we have seen in Cuyonon, future studies can also look into encoding motion events from different perspectives.

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7 Appendix

List of Abbreviations

=	clitic boundary marker	IRR	irrealis
3PL	third person plural	LF	locative focus
3SG	third person singular	LNK	linker
ABS	absolutive	LOC	location
ASP	aspect	NEG	negation
AF	actor focus	OBL	oblique
DEICT	deictic marker	PFV	perfective
DEM	demonstrative	PF	patient focus
ERG	ergative	PL	plural
EXT	existential	PROG	progressive
GEN	genitive case	PRTCL	particle
INTR	intransitive	Q	question word or particle
INTRJ	interjection	REL	relativizer
IPFV	imperfective	TR	transitive

Proto-Modern Astronomy in the Philippines: A History of Words, 10th- 19th Century

Emmanuel Jayson V. Bolata

Abstract

"Proto-modern astronomy" in the Philippines pertains either to an astronomical paradigm or a historical phase that mediates the "pre-modern" (i.e., indigenous Austronesian, since the 3500 BCE) and the "modern" (i.e., brought about by the Eurasian "scientific revolution," 16th century CE). Among the Philippine communities, the existence of proto-modern astronomy implies linguistic contact and socio-cultural interaction with Sanskrit, Arabic, and Malay speakers. Moreover, it shows the Philippine reception of foreign astronomical knowledge and practices before the advent of Euro-American colonialism.

To isolate the proto-modern elements, a discussion on pre-modern Austronesian astronomy is provided. Basic astronomical words can be reconstructed into the follow-

ing protoforms: PAn *laŋiC 'sky, heaven,' PAn *qajaw 'day, sun,' PMP *qalejaw 'day, sun,' PAn *bulaN 'moon,' PAn *bituqen 'star,' PMP *talaq$_1$ 'star,' PPh *bulalákaw$_2$ 'meteor, shooting star,' PPh *dúlis 'meteor, shooting star,' and PPh *dúlit 'meteor, shooting star.' By identifying the foundational elements, we can now recognize the latter additions, marked by Sanskrit-Arabic influences through Malay. These additions appear in the form of words for 'astral science/scientist,' 'heaven/hell,' 'deity/spirit,' 'eclipse,' 'Milky Way,' 'comet,' 'fixed star,' and 'planet,' as well as cosmological, mathematical, and astrological ideas and practices. The period of the study begins in the 10th century CE, the time of the Laguna Copperplate Inscription, which contains the important word *jyotisha* 'astral science; astrologer' and ends in the 19th century, when the Spanish intrusion of the Pulangi Valley, mainly through the Jesuit missionaries, led to the documentation of Maguindanaon, whose astronomical loanwords were clearly from Sanskrit-Malay and Arabic-Malay.

Keywords: Philippine astronomy, proto-modern astronomy, ethnoastronomy, Austronesian languages, Sanskrit, Arabic, Malay

1 Introduction

The development of astronomical knowledge and practices in the Philippines can be roughly divided into three phases: (1) pre-modern, (2) proto-modern, and (3) modern. *Pre-modern astronomy* pertains to

the foundational Austronesian paradigm which is traceable up to 3500 BCE. One may reconstruct this through gathering and interpreting linguistic, historical, and ethnographic sources. *Proto-modern astronomy* is considered as a mediating phase: with the use of the prefix *proto-*, it denotes an early form of scientific knowledge or practice, showing antecedence, if not what the molecular biologist Gunther S. Stent calls "prematurity" (Hook, 2002). Among the Philippine communities, the proto-modern phase implies linguistic contact and sociocultural interaction with Sanskrit, Arabic, and Malay speakers since the 10th century CE. Lastly, *modern astronomy* was brought to the Philippines mainly by the Spanish and American colonizers, with its prominence only occurring in the 19th to the early half of 20th century.[1]

Two reasons can be cited for the needed attention to define and examine Philippine proto-modern astronomy. First, it calls for a re-assessment of Philippine ethnoastronomical studies, specifically the contributions of historian Dante L. Ambrosio (1994, 1996, 1999, 2003, 2005, 2006, 2010). His body of works, best represented by the book *Balatik: Etnoastronomiya: Kalangitan sa Kabihasnang Pilipino* (Balatik: Ethnoastronomy: Sky in Philippine Culture, 2010), offers a novel perspective on Philippine science. In the face of collective forgetting and neglect amplified by Westernized education, colonial mentality, and lack of scholarship, it serves to remind us of our very own "ethno-" and "indigenous" astronomy and sciences. To follow the path that Ambrosio

[1]Other historians resort to the term "pre-modern" in their own specific contexts of study (Schmidl, 2015, 2022). However, being mostly at the receiving end of knowledge transmission (i.e. of "Eurasian astral science tradition," as worded in Plofker, 2015, p. 1984) especially since our indigenous sciences are not only different but also durable, it would be best to categorize the preconquest reception of foreign astronomical knowledge as "proto-modern" rather than "pre-modern."

has set for us, we can further unknot what he calls "indigenous" (*katutubo*). By closely examining the finer threads in this expansive loom of "ethnoastronomy," we will be able to distinguish (1) which knowledge and practices belonged to the foundational Austronesian paradigm, and (2) which were the epistemic products of interaction with our Southeast Asian neighbors. Some primary sources and lexicographic materials are also presently accessible which can be used to update Ambrosio's data and interpretation.

Moreover, by distinguishing which astronomical knowledge and practices were conceived much earlier (since ca. 3500 BCE) and which were received only on a later period (ca. 10th century CE), we may accomplish the second task: to trace lines of influence and reception of foreign episteme. By looking at the Sanskrit, Arabic, and Malay epistemic influences, we can argue for the existence of proto-modern and modern astronomical systems long before the colonial transplant of Western astronomy to the islands. In effect, it implies an alternative view of knowledge networks, a kind of "decentralization" that reexamines the origins of what has been hailed as "modern." Modern astronomy is commonly perceived as an offspring of the "scientific revolution" in sixteenth century Europe (Kuhn, 1957, 1962), with Nicolaus Copernicus, Tycho Brahe, Johannes Kepler, and Galileo Galilei at its forefront (Butterfield, 1962; Reichenbach, 1962; Whitehead, 1925). Such form of scientific "modernity" is characterized by its paradigm shift in what Galileo himself worded as "chief world systems"— i.e., from geocentrism to heliocentrism.[2] However, mostly absent in these stories are the efforts of Muslim

[2] In his highly controversial *Dialogo sopra i due massimi sistemi del mondo* (Dialogue concerning the two chief world systems, Galilei, 1632/1967), Galileo referred to geocentric (earth-centered) system as "Ptolemaic" (*Tolemaico*), after the Alexandrian

intellectuals who studied, translated, and corrected the Greco-Roman astronomical texts (Blake, 2016; Gingerich, 1986; Heidarzadeh, 2015; Masood, 2009, pp. 131–138; Saliba, 1982, 2002; Pingree, 1973). It was the shoulders of these giants, who had their golden age from the 8th to 14th century, on which Copernicus probably stood, along with his book that argued for heliocentrism, *De revolutionibus orbium coelestium* (On the Revolution of Celestial Spheres, Copernicus, 1543/1952).

The period concerned, however, poses a historiographical difficulty—the lack of documentary evidence. Thus, to write a history of preconquest Philippine astronomy, we have to further the cracks on the parchment curtain by employing interdisciplinary approaches, such as those done in historical or diachronic linguistics. This necessitates attention to words referring to astronomy and related sciences. Like Ambrosio's approach, I used historical sources, ethnographic accounts, and literary texts, along with linguistic data mainly from Robert Blust, Stephen Trussel, Alexander D. Smith, and Robert Forkel's *The Austronesian Comparative Dictionary* (hereafter ACD, last updated in 2023). I was also guided by historians and linguists whose insights and interpretation will be cited on relevant occasions. Conversely, this study also tries to "take full advantage of the primary-source archival information" (Walicek, 2007, p. 297), albeit produced under colonial auspices, for the benefit of both disciplines and their practitioners. The period of the study begins in the 10th century CE, the time of the Laguna Copperplate

astronomer and mathematician, Ptolemy (ca. 100-170 CE). His *Mathēmatikē Syntaxis* (Mathematical Composition, ca. 150 CE or later), more popularly known as *Almagest,* provided mathematical proofs for the geocentric argument that had been established by cosmology. For the actual texts, see Ptolemy's (1952) *The Almagest* (ca. 150 CE/1952) and Aristotle's *Physics* (4th c. BCE/1996). Heliocentric (sun-centered) system is called "Copernican" (*Copernicano*), after Copernicus (1543/1952).

Inscription, which contains the important word *jyotisha* ('astral science; astrologer,' ultimately from Sanskrit *jyótiṣa*), and ends in the 19th century, when the Spanish intrusion of the Pulangi Valley, mainly through the Jesuit missionaries, led to the documentation of Maguindanaon, whose astronomical loanwords were clearly from Sanskrit-Malay and Arabic-Malay.

2 Pre-modern Astronomy

In order to establish proto-modern astronomy characterized by influences from Sanskrit, Arabic, and Malay speakers, we have to isolate first the foundational Austronesian-based astronomy. Most of the basic astronomical words used in Philippine communities are traceable to Austronesian protolanguages, i.e. Proto-Austronesian (PAn), Proto-Malayo Polynesian (PMP), Proto-Western Malayo-Polynesian (PWMP), and Proto-Philippine (PPh). These words are reconstructed into the following protoforms: PAn *laŋiC 'sky, heaven,' PAn *qajaw 'day, sun,' PMP *qalejaw 'day, sun,' PAn *bulaN 'moon,' PAn *bituqen 'star,' PMP *talaq$_1$ 'star,' PPh *bulalákaw$_2$ 'meteor, shooting star,' PPh *dúlis 'meteor, shooting star,' and PPh *dúlit 'meteor, shooting star' (Blust et al., 2023; see Section 6).[3] The salience of these Austronesian astronomical

[3]Some remarks on PWMP and PPh categories, in relation to Section 6: Alexander D. Smith (2017) posed an important critique to the PWMP category, and in 2019, Robert Blust himself admitted that "the concept of a WMP subgroup distinct from MP became more difficult to maintain" (Blust, 2019a, p. 427). On PPh, the terrain of debate among linguists can be surmised through reading Lawrence A. Reid's (1982) *The Demise of Proto-Philippines* and Robert Blust's (2019b) *The Resurrection of Proto-Philippines.* The latter earned some responses—from Malcolm Ross (2020), R. David Zorc (2020), Hsiu-chuan Liao (2020), and Reid (2020) himself—and Blust was also able to respond to these comments (Blust, 2020). These papers were compiled in the

protoforms is further proven by several semantic extensions among the reflexes, and the associated mythological and cosmological concepts, beliefs, stories, and customs.

Since protoforms are reconstructed according to a particular level of protolanguage, and since these levels correspond to a certain period of formation (Bellwood et al., 2011; Bellwood, 2017; Blust, 2019a), we may identify possible timeframes relevant in periodizing the Austronesian astronomical paradigm (Table 1).

Table 1. Possible Formative Periods of Austronesian Astronomical Concepts

Period	Level	Gloss	Protoform
As early as 3500 BCE	PAn	'sky,' 'heaven' 'day,' 'sun' 'moon' 'star'	*lanjiC *qajaw *bulaN *bituqen
As early as 2200 BCE	PMP	'day,' 'sun' 'star'	*qalejaw *talaq$_1$
	PPh	'meteor,' 'shooting star'	*bulalákaw$_2$ *dúlis *dúlit

Since the said words contains meanings other than the astronomical, we may designate primary and secondary meanings based on the protolanguage levels and the cognate sets. In other words, precedence can be proposed according to the possible age and frequency of words and meanings. For the astronomical paradigm, there can be three possi-

volume 59, no. 1-2 (June/December 2020) of *Oceanic Linguistics*. Nonetheless, for Section 6, I maintained the PWMP and PPh categories in accordance with the ACD data (Blust et al., 2023).

bilities for the ordinality of meanings among the protoforms discussed above:

(i) the non-astronomical meaning precedes the astronomical;

(ii) the astronomical precedes the non-astronomical; and

(iii) no lexical precedence can be justified, thus the astronomical and the non-astronomical possibly co-exist at the same time.

Ambrosio emphasized the likelihood of (i), as shown in the case of *Balatik* 'Orion' constellation.

> What is *balatik* on land before it became *Balatik* in the sky? It is a kind of trap used for hunting by different ethnic groups in the Philippines… What is Balatik? It is a constellation that looks like and is named after the balatik trap. Thus, from the fields and forests, the Filipinos elevated it to the sky. Although it was used for hunting on land, it was used for slash-and-burn farming when it was placed in the sky. Among the dictionaries compiled by Spanish priests and the ethnographic studies during the twentieth century, it pertains both to a trap and the reference constellation for slash-and-burn farming (Ambrosio, 2010, p. 9).

However, by looking at protoforms individually, this is not always the case. Table 2 organizes Blust, Trussel, Smith, and Forkel's ACD data based on the above categories. Of course, we are aware of ACD's limitations, from the expected accuracy of orthography to the range of

meanings. The table can be further revised through future acquisition of additional data, either via archival or field work.

Table 2. Semantic Ordinality of Austronesian Astronomical Words

Protoform	**Meanings**	**Number of languages in the Philippines where astronomical (+), non-astronomical (-), and both (+, -) meanings appear**	**Type of semantic ordinality**
PAn *lanjiC	'sky, heaven' > 'spirits of the sky,' 'skyworld,' 'celestial,' 'Heaven' (i.e. with religious connotation), 'eternity,' 'joy, happiness'	23 (+) > 8 (+, -) > 0 (-)	(ii)
PMP *qalejaw	'day' > 'sun' or 'day' = 'sun'	10 (-) = 10 (+, -) > 2 (+)	(i) or (iii)
PAn *bulaN	'moon' = 'month' or 'moon' > 'month'	21 (+, -) >/= 8 (+) >/= 0 (-)	strongly (iii), but (ii) is initially probable
	'moon' = 'month' > 'menstruation,' 'pregnancy duration'	26 (+) > 3 (+, -) > 0 (-)	(ii)

Protoform	**Meanings**	**Number of languages in the Philippines where astronomical (+), non-astronomical (-), and both (+, -) meanings appear**	**Type of semantic ordinality**
PAn *bituqen	'star' > 'for the stars to come out after a rain shower' 'be starry, of the sky,' '*Barringtonia asiatica*'	16 (+) > 3 (+, -) > 1 (-)	(ii)

Protoform	Meanings	Number of languages in the Philippines where astronomical (+), non-astronomical (-), and both (+, -) meanings appear	Type of semantic ordinality
PPh *bulalákaw$_2$	'spirit of the shooting star,' 'rainbow,' 'a kind of eel,' 'whiteness,' 'a fireball with a tail,' 'St. Elmo's fire,' 'a kind of bird,' 'a supernatural being,' 'nature spirit, deity,' 'craze, madness, insanity (caused by evil spirits),' 'god of the fish' >/= 'shooting star, meteor, comet'	7 (-) >/= 5 (+, -) >/= 4 (+)	(i), but given the variety of non-astronomical meanings, it is probably (iii)

PMP *qalejaw exhibits two possible scenarios. First, it can be a type (i), wherein its non-astronomical meaning ('day') has appeared earlier

(and thus, historically "stronger") than its astronomical meaning ('sun'). Considering the doublet PAn *qajaw 'day' as earlier protoform, it appears that 'sun' in PMP *qalejaw is an extension of 'day.' This phenomenon is mirrored in the Bahasa Sug *suga* 'sun,' which expanded from the Bisayan *suga* 'lamp' (Hassan et al., 1975, p. 521; Wolff, 1972/2014).[4] Second, it can be a type (iii), as shown in the number of languages that argue for it [10 (-) = 10 (+, -)]. This is also supported by the specific reflexes in PAn *qajaw 'day' (see Paiwan *qadaw* 'sun; day; clock, watch' and *pa-qadaw* 'put in the sun (to dry); use a burning-glass,' Tamalakaw Puyuma *kadaw* 'sun'), and also in PAn *ma-qajaw 'sunny, hot' (see Paiwan *ma-qadaw* 'the sun appears; be burned by sun') and PAn *q<um>ajaw 'to shine, of the sun' (see Paiwan *q-m-adaw* 'the sun shines' and Ifugao *um-algó* 'to shine, of the sun'). Such semantic duality is further shown in PMP *qalejaw-qalejaw 'daily, every day,' PPh *qalejaw-an 'place in the sun,' and other protoforms with uncertain glosses, like PWMP *maŋ-qalejaw, PWMP *paŋ-qalejaw-an, and PPh *ka-qalejaw-an.

For PAn *bulaN, given that there are eight languages that refer to **bulaN* as 'moon' and none as solely 'month,' it appears that 'moon' is the primary meaning of *bulaN, followed by 'month,' therefore a type (ii) case. However, given the large number of languages—twenty-one—that pertains to *bulaN as both 'moon' and 'month,' we may say that it can also be a type (iii) case. How these two meanings converged can be scrutinized in the future. On PAn *bulaN as type (ii), i.e. 'moon'

[4]Interestingly, terms for 'east' which use the rising of sun as referent often pertain to the action (i.e. rising) rather than its actor (i.e. sun), as observed in the reflexes of PPh *sebaŋ 'to rise, of the sun, moon, or stars' like the Bikol, Cebuano, and Bahasa Sug *subangan*, Maguindanaon, Maranao, and Teduray *sebangan*, Mamanwa *sibazan*, and Sama *sobangan*, and PPh *sikat 'sunrise, rising sun,' like the Casiguran Dumagat *sikat* (Gallego, 2018, pp. 68–69).

= 'month' > 'menstruation,' 'pregnancy duration,' we can observe the relationship between an astronomical body, timekeeping, and women's body and health.[5] Moreover, PWMP *bulan-en and *bulan bulan-en 'affected by the moon, mentally or emotionally unstable' are also suggestive of a phenomenon wherein people's health is seen through an astrological perspective.

Since the categorization of type (iii) mainly rests upon "equivalence," as shown in PMP *qalejaw and PAn *bulaN, a future updating of the ACD would entail recategorizations. Nonetheless, for PPh *bulalákaw$_2$, although it appears to be a type (i) case, due to the varieties of meanings—eleven non-astronomical meanings that differ significantly from each other—we may categorize the word under type (iii).

As cases of type (ii), the astronomical meanings of PAn *lanjiC and PAn *bituqen extend into other semantic domains. On PAn *lanjiC, the expansion hints religious and cosmological aspects. In Blust et al. (2023), it is remarked that, "in most languages it seems to have referred not only to the physical sky, but also to a mythological realm of spirits," something that Ambrosio (2010, pp. 47–48) had shown in *Balatik* through comparative ethnography. On PAn *bituqen, aside from flora and fauna ('starfish;' '*Barringtonia asiatica*'), the meaning extends to astronomical bodies and phenomena, not only as sky description or action ('for the stars to come out after a rain shower;' 'be starry, of the sky'), but also as 'comet' (Tagalog *bituing may sombol*; Maguindanaon *bituun bericor* and

[5]This can also be compared to the Bisayan *tuig* 'time; year; harvest; menstruation.' In the essay *Harvest Time,* Resil B. Mojares (1997, p. 119) wrote, "It is not stray coincidence that *tuig*—'harvest'—is also an old Visayan term for a woman's menstrual flow, a mystery that evokes not only what is periodic but what is irrigative and life-giving."

bituun berasap), 'fixed star' (Maguindanaon *bituun tatap*), and 'planet' (Maguindanaon *bituun beridar*) (*Compendio y breve vocabulario*, 1888, p. 85; Noceda & de Sanlucar, 1832, p. 375).

There are other words, however, that cannot be traced to a proto-form. In Mangyan languages, for example, the words for 'star' do not reflect *bituqen. Rather, words such as *paŋgasán, faŋgasán, galeme, galaymay,* and *magirəm* embody "a more inventive example of innovation" (Ambrosio, 2010, pp. 32, 37, 44–45; Scott, 1984, p. 46). William Henry Scott (1984, p. 46) also described the Hanunóo *panggasan* and the Buhid *fanggasan* as "a rather poetic extension of the word for the holes punched in the ground for seed rice." Shown in Table 3 are the said Mangyan words derived from Zorc (1982),[6] with additional data provided by linguist Jesus Federico C. Hernandez (personal communication, 2023).

[6]Zorc explained the case of the Mangyan stars: "The PAN word for 'star' is reconstructed as *bi(n)tu:q-ən… In all Mangyan languages it has been replaced: Hanunoo *paŋgasán:* Buhid *faŋgasán,* Taubuid *galeme:* Tadyawan *galaymay,* Alangan, Iraya *magirəm.* Lexicostatistical and other evidence would agree that the Hanunoo-Buhid form is a South Mangyan innovation, and that the Alangan-Iraya form is a North Mangyan innovation. There is no doubt that the Taubuid and Tadyawan forms are cognate and represent an innovation, but there is: (a) no (other?) qualitative evidence that Taubuid and Tadyawan belong in an immediate subgroup (b) no lexicostatistical evidence that they share any especially close genetic connection (c) the fact that the two languages border one another, and (d) the observation that [g] is problematic in Tadyawan since *R > y in most basic vocabulary, while *R > g in Taubuid.. Therefore, the North and South Mangyan innovations stand along with other evidence, but it is clear that a Tadyawan innovation (*galaymay) was borrowed early into Taubuid, and then underwent the *ay > e sound shift" (Zorc, 1982, pp. 314–315).

Table 3. Mangyan Words for 'star'

Micro-Group	Language	Words	
		Zorc (1982)	Hernandez (2023)
North Mangyan	Alangan Iraya	*magirəm*	*magirëm* [ma.gɪ.ˈrəm]
	Tadyawan	*galaymay*	
Greater Central Philippine > South Mangyan	Tawbuid	*galeme*	*galeme* [ka.ˈlɛ.mɛ] *tagurabas* [ta.gʊ.ˈra.bas]
	Buhid	*faŋgasán*	*fanggasan* [faŋ.ga.ˈsan]
	Hanunoo	*paŋgasán*	*pamgasan* [pam.ga.ˈsan][7]

Source: Zorc (1982); Hernandez (personal communication, 2023).

Some words are thought to be borrowed from a foreign source but are in fact Austronesian-based. Such are the cases of Bahasa Sug *suga* and Tagalog *tala?*.

In *The History of Sulu*, historian Najeeb M. Saleeby (1908) mentioned that the parents of the Muslim missionary Tuan Masha'ika, Jamiyun Kulisa and Indira Suga, "are mythological names and in all probability represent male and female gods related to the thunderbolt and the sun, respectively." He implies that *suga* is based on "Surya, the sun" (Saleeby, 1908, pp. 155–166; see also Donoso, 2013, p. 142). *Suga*, however, refers

[7] *Pamgasan* also appeared in Hanunoo Mangyan oral literature recorded in Bapa/Antoon Postma's *Kultura Mangyan 2*. *Pamgasan* is the answer for the riddle "Namurak ti diyaa;/ Ud mabilang makas-a" (The Diyaa bears fruit,/ Can't count even a single one) (Postma, 2005, p. 119). The poem "Dayo siya sa abwat pagkatungkulan" (It doesn't like higher duties), the *pamgasan* named Kuyamnagan speaks with Bulan (Moon) to exchange names and tasks (Postma, 2005, p. 117).

to 'the sun' in Bahasa Sug, a counterpart to *adlaw*, 'day, a period from sunup to sundown, may also refer to day time as opposed to night time' (Hassan et al., 1975, p. 9). Its meaning is possibly a secondary expansion of the Bisayan *suga* 'lamp' (Wolff, 1972/2014).

Citing the Indologist Juan R. Francisco, Ambrosio (2010, p. 39) rooted the Tagalog *tala?* from the Sanskrit तारा *tārā* 'star.' This seems implausible given that Ifugao and Mansaka, languages spoken mostly in the interior, has *talló* 'bright morning or evening star, the planet Venus,' and *bonta-tara?* 'morning star,' respectively. The Franciscan friar Juan de Plasencia referred to *Tala* as 'morning star' (de Plasencia, 1589/1903, pp. 188–189), as well as Jose Rizal, who, in a letter to his friend Ferdinand Blumentritt, mentioned Tagalog *tálâ* as 'bright star' (*lucero*) and 'morning and evening star' (*Morgenstern, Abendstern*) (Rizal, 2010, pp. 57–59). With these, Blust et al. (2023) provides the PMP *talaq$_1$ 'the morning (evening) star: Venus.' In addition to the ACD data on Ifugao and Mansaka reflexes, *talaw* 'star' is also used in Kankanaey (Fong, 2021, pp. 19–23; Ramos, 2022, p. 86) and Central Bontok (Bontoc Igorot) (Wrigglesworth, 1991, pp. 230–233), while the pre-Ibaloi reconstruction *talaw 'star' is also being proposed (Barra et al., 2023, p. 85). Moreover, Sanskrit words would usually pass through Malay before entering Tagalog and other Philippine languages. Malay and Javanese did not borrow *tārā*; instead, they have *bintaŋ* 'star,' or *wintaŋ* in Old Javanese.[8] The absence of the

[8]Assessing Otto Dempwolff's proposed *bintaŋ 'star,' Blust et al. (2023) settled with the following explanation: "This comparison is especially problematic, since it involves an item of basic vocabulary which appears to have been widely borrowed, in most cases presumably replacing a reflex of PAn *bituqen. In addition to competition with the more widely distributed *bituqen, phonological irregularities and the frequently reflected secondary meaning 'medal, decoration' suggest that this comparison is a product of diffusion. On the other hand, the basic character of the term, and

Malay or Javanese intermediary in the proposed *tārā* > *tala* suggests that the PMP *talaq$_1$ is possibly a Philippine innovation rather than a product of borrowing.

Generally, we cannot say yet that these words, along with the concepts and practices they carry with them, were organized into a "proper" system. Given our current set of historical primary sources and linguistic data, the Austronesian astronomical paradigm reflects what philosopher Michel Foucault calls "insufficiently elaborated knowledges," which "should be understood as meaning something else and, in a sense, something quite different" (Foucault, 2003, p. 7). This "insufficiency" is apparent in the absence of Austronesian words for 'astronomical science' and 'astronomer.' Astronomical knowledge and practices, along with those of the other sciences, are possibly contained in an umbrella term, PPh *dunuŋ 'knowledge, skill, intelligence' (Blust et al., 2023), while the astronomer or astrologer might be found in the figure of *babaylan* and *katalonan*, the keepers of indigenous knowledge.

Such absence can also be attributed to the method and function of knowledge. It seems that Austronesian Filipinos were already content with how their astronomy served its purpose of time and weather-keeping for agricultural and maritime activities. Their established cosmologies, too, gave them no reason to examine the world and the cosmos

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its integration into a number of culturally significant expressions (names for stars important in the traditional agricultural calendar, the Karo Batak term for rice-milling songs, etc.) give one hesitation about a borrowing hypothesis in particular cases. More precisely we should say that *bintaŋ was an innovation in a language which gave rise to Malay and certain of its closest relatives. With the ever-increasing influence of Malay after the rise of Indianized states in southern Sumatra the word then spread to languages which did not inherit it directly (including Malagasy, which presumably acquired it during the 7thcentury A.D. in southern Sumatra)."

the way the Babylonians, Hebrews, Greeks, Chinese, Indians, Arabs, and Europeans did. Just like what Petra G. Schmidl (2015, p. 1928) said about folk astronomical procedures, the Austronesian tradition mostly "make[s] use of straightforward arithmetical methods, not trigonometric procedures, geometrical models, and analemmata… [and does] not distinguish between exact and approximate methods." This issue of epistemic process and relevance further strengthens the divide between the Austronesian-Philippine tradition and its Eurasian counterparts (including Sanskrit-Arabic). As Francisco Ignacio Alcina, a Jesuit priest, reported about the "liberal arts and sciences" of the Bisayans in the 17thcentury:

> For one and the other, some astronomical principles pertaining to the skies, the planets and their influences were a necessity; based on their appearances and positions, they had made their judgments but in a rather *grosso modo*, in order to determine the seasons and to take advantage, in advance, of the proper time for sowing and planting and of the tranquil or stormy weather for sailing. They made use of the knowledge of both with a reasonable measure of success.
>
> Therefore, although they did not have teachers who may have instructed them, nor scholars who may have informed them, we do know that whatever pertains to the heavens and its course, to the planets and their influences, they have known something, either from tradition of their ancestors or from the experience that time passed on to them. And so, whatever pertains to the sphere and the roundness of

> the earth, its matter and qualities, they were ignorant of these to a great degree (Alcina, 1668/2005, p. 55).

However, as the adage goes, the absence of evidence is not evidence of absence, and as linguist Maria Kristina S. Gallego (2018, p. 66) reminds us about negative evidence, "the lack of [words in documentary sources] may simply be the result of incomplete lexicographic work rather than the actual absence of such terms in the lexicon of the language."

3 Proto-Modern Astronomy

Astronomical knowledge and practices registered in Sanskrit-Malay and Arabic-Malay found their way into the Philippine communities through complex cultural interactions. Texts using a mix of Sanskrit, Arabic, and Southeast Asian languages are themselves proofs of these interactions. Borrowings are a common phenomenon since these foreign languages, with their set of scripts, may embody prestige and relevance when it comes to religious, sociopolitical, and economic matters.

On one hand, the spread, use, and modification of Sanskrit in Southeast Asia went hand in hand with the so-called "Indianization," as seen in Mon (3rd century BCE), Funan (1st century CE), Champa or Lin-yi (2nd century), Burma (2nd century), Pyu (3rd century), Chenla (6th century), Srivijaya (7th century), the Sailendras (8th century), Mataram (10th century), Kediri (11th century), Singhasari (13th century), Sukhothai (13th century), Ayutthaya (14th century), Majapahit (14th century), and the pre-Islamic Malacca (15th century) (Coedès, 1968; SarDesai, 2013, pp. 21–58; Tarling, 1966, pp. 24–26). Old interpretations of scholars argued that the Philippine communities also received "the

stimuli of Indian influences common to the region" (Churchill, 1977, p. 21), although these have been interrogated by contemporary studies.[9] Arabic, on the other hand, was introduced to the region even before the establishment of Islam in the Arabian Peninsula in the 7th century, due to the preexisting trade relations between the Arabs, the Southeast Asians, and the Chinese. Its vernacularization, however, occurred along with the Islamization of insular Southeast Asia. This was initially enabled by the Indian Muslims, either from Gujarat or Coromandel, who later attained economic and political prominence in Sumatra and beyond. As early as the 10th century, there were already Muslim Chams in Southern Vietnam; however, the large extent of the Islamic influence was observed in its spread in the Indo-Malay Archipelago since the 13th century. In 1414 happened the conversion of Melaka (Malacca), an important trading port in the region (SarDesai, 2013, pp. 54–58). Islamized Philippine communities and ethnic states can be found in Sulu, Mindanao, and Manila. Missionary efforts from the 13th to 16th century led to the formation of Muslim ethnic states, such as the Sulu and Maguindanao sultanates (Donoso, 2013, pp. 118–173; Majul, 1976).

Given these contexts, we need to emphasize the role played by our Southeast Asian neighbors in transmitting into the Philippine commu-

[9]In order to "conceive a nuanced notion of a 'Malay World,'" Clavé and Griffiths (2022, p. 217) asserted that the use of Sanskrit in early Southeast Asia does not necessarily imply "the migrations and political domination from India that now-discredited theories of 'Indianization' imagined." Treat this as a response to Churchill's (1977, pp. 36–37): "With respect to Sanskrit borrowings in the Philippine languages, much discussion has centered on whether the borrowings were directly from Sanskrit or from an intermediate Malay language. This misses the point; the significance of the Sanskrit borrowings lies in the nature of the words themselves;" "In other words, the borrowed words would almost certainly have been absorbed directly from possessors of a living Hindu tradition."

nities the cultures, beliefs, knowledge, and thought registered in Sanskrit and Arabic languages. In other words, what we received in Sanskrit and Arabic may not be the Indian or Arabian original—rather, it would be an amalgam of the Indian and Arabian sources and the Southeast Asian intermediary.

Most likely, this intermediary is Malay. Dated 7th century, the earliest record on Malay language can be found in south Sumatra. The record used Old Malay and the script called Pallawa, a South Indian adaptation of the Brahmi script. Other inscriptions were found in Java (dated 9th-10th century), in the Philippines (10th century), and in Minangkabau and Aceh (14th century) (Adelaar et al., 1996). The prominence of Malacca as an economic center in the region made Malay as a lingua franca, and thus a major borrower of Sanskrit and Arabic words (Ostler, 2005, p. 213). In terms of Malay as intermediary and donor to Philippine languages, Blust remarked, "The presence of hundreds of Sanskrit loanwords in the Philippines—an area that was never directly exposed to Indian civilization—should cause us to suspect strong Malay linguistic influence in the area, since Malay is the most likely candidate for a language of transmission of Sanskrit vocabulary from areas that were directly exposed to Indian civilization" (cited in Ambrosio, 2010, p. 45, 11f). Aside from Philippine languages, Malay also served as an intermediary between Sanskrit-Arabic and Malagasy (Adelaar, 1994).

In line with this, scholars who argued for the existence of a Philippine "Hindu-Buddhist" past (e.g. Churchill, 1977) have failed to recognize the active role of the so-called "Malay World" in filtering, modifying, and transmitting Indian (and later, Arabian) influences. Recall the century-

old comment of A.L. Kroeber against T.H. Pardo de Tavera on Sanskrit in the Philippines:

> From this he [Pardo de Tavera] goes on to argue that Hindus must have been present in the Philippines in person, and at least among the Tagalog filled the principal positions of power and prestige: "the warfare, religion, literature, industry, and agriculture were at one time in the hands of the Hindus." This is perhaps an exaggerated inference. East Indians saturated with Hindu civilization could just as well have produced the same effects in the Philippines. But it is clear that the effects occurred; and it will be only a matter of more patient and critical study to trace them with considerable accuracy, and perhaps even determine their period quite closely (Kroeber, 1919, p. 202).

Enactments of this task are already plenty (Adelaar, 1994; Adelaar et al., 1996; Clavé & Griffiths, 2022; Salazar, 1968; Verstraelen, 1960; Wolff, 1976). These studies emphasized the role of Malay in relaying Sanskrit and Arabic borrowings to Tagalog, Cebuano, Bikol, Maguindanaon, Maranao, Bahasa Sug, and other Philippine languages, exhibiting the "intensity of Malay influence" (Zorc, 1993, p. 205). Although Zorc attributed such "intensity" to Tagalog borrowings, thus implying the stature of Tagalog as a precolonial lingua franca, we can also look at the languages in the Philippine South to see how Malay "made its mark" beyond the confines of Tagalog. In fact, it is among these southern languages that would attest to the continuous flow of non-indigenous scientific words and ideas, admirably despite Western epistemic violence.

Maguindanaon, for instance, preserved the Arabic-based planet names, while Tagalog did not.

By the time Malay had "appreciable influence" in Sulu, Mindanao, and the Tagalog region (Wolff, 1976, p. 345), the so-called "Eurasian astral science tradition" (Plofker, 2015, p. 1984) had already achieved significant development through scientific and cultural interactions. The said term covers the Hellenistic, Indian, Arabian, Persian, Asia Minor (including both the Christian Byzantine and the Islamic Ottoman) and early modern European traditions (Plofker, 2015, p. 1984). As early as the 3rd to 6th century, the Indian *siddhāntas* 'astronomical treatises' had shown Greco-Roman influences, and by the early 8th century, Indian adaptations of Greco-Roman and Babylonian techniques reached China through Chinese translations (Blake, 2016, pp. 15–16; Dallapiccola, 2002, pp. 104–105; Pingree, 1973, p. 32). From the 7th to 10th century, the spread of faith from the Arabian Peninsula led to the establishment of Islamic communities in West and Central Asia, India, North Africa and the Iberian Peninsula. Since the 8th century, exchanges between Indian and Muslim communities led to parallel innovations in their own astral sciences (Dallapiccola, 2002, pp. 104–105). Engaging with multiple cultures, the Islamic intellectual tradition benefitted from Persian, Syrian, Indian, and Hellenistic sources (Heidarzadeh, 2015, p. 1917), particularly absorbing the Greco-Roman system of cosmology and physics (Chapman, 2018, p. 32). Ptolemy's *Mathēmatikē Syntaxis* (Mathematical Composition, ca. 150 CE or later) would find its way to medieval Europe through the Arabic mediation in the 8th and 9th centuries. In fact, its popular title, *Almagest*, is an Arabic corruption (*al-majisṭī*) of the Greek *megiste*, 'greatest,' derived from a later title, *Hē Megalē Syntaxis* 'The

Great Treatise.' The Arabic *Almagest* had at least four translations, which probably passed through Syriac translations of the original (Heidarzadeh, 2015, p. 1917; Pingree, 1973, pp. 34–35). Although "they never offered a thoroughgoing alternative" to the Ptolemaic system, only "pointing out contradictions and offering corrections," Stephen P. Blake (2016, p. viii) argued that it was the "insights and discoveries [of these Islamic astronomers and mathematicians] that paved the way for the grand revolution that followed." Referring to the 8th to 14th century as the "Islamic period of astronomy," Owen Gingerich (1986, p. 74) wrote, "During that interval most astronomical activity took place in the Middle East, North Africa and Moorish Spain. While Europe languished in the Dark Ages, the torch of ancient scholarship had passed into Muslim hands. Islamic scholars kept it alight, and from them it passed to Renaissance Europe."

3.1 Sanskrit-Malay

In contrast with the PPh *dunuŋ 'knowledge, skill, intelligence,' which found its nationalized form in the Filipino *karunungan*, we have another word that corresponds to 'science'— *agham*. Although it was popularized by Gonsalo del Rosario as an equivalent for science in the contemporary sense of the word (see Guillermo, 2009), *agham* and its variations are already in use among Philippine ethnolinguistic groups, although with a different meaning. Ultimately from Sanskrit, Old Javanese defines *āgama* as 'sacred tradition, doctrine or precepts; collection of such doctrines; sacred work,' while in Malay and Javanese, *agama* (or *igama, ugama*) is simply 'religion.' In Maguindanaon and Maranao, it is also 'religion' (Blust et al., 2023). A Maguindanaon dictionary also men-

tioned *peragama* 'to practice or to exercise religion,' *agama a benal* 'true religion,' and *agama mesehi* 'Christian religion' (Juanmartí, 1892, p. 7). *Agama* can be compared with the Arabic-based *ilmu*, to be discussed later, being closer to the meaning of science and knowledge.

The Sanskrit term, however, for the science of the heavens and heavenly bodies is *jyotiṣa* (also spelled *jyotisha*). It is derived from the ज्योतिस् *jyótis*, 'light.' Since this term "can encompass astrology and divination as well as astronomy" (Plofker, 2015, p. 1982), scholars would sometimes use the more generic 'astral science' (Clavé & Griffiths, 2022, pp. 188, 196–198). The sacred Sanskrit texts known as *Vedangas* 'limbs of the Veda' include the *Jyotiṣavedāṅga* (Ôhashi, 2015), although the predecessors of this text were probably "imported from Mesopotamia and from Persia" (Dallapiccola, 2002, p. 105). As early as the 2nd century CE, a Greek astrological text was adapted to Sanskrit, and by the 3rd to 4th century, Indian astronomers would be reading the *Yavanajataka* (Greek Astrology, ca. 269-70) and the *Romaka Siddhānta* (Roman Astronomical Treatise, ca. 4th century). Antedating the Arabic *zij*, the Indian *siddhāntas* 'astronomical treatise' were made and used, like the *Sūrya Siddhānta* (lit. 'Sun Treatise,' ca. 400 CE) and the *siddhāntas* of the Indian scientists Aryabhata (ca. 476-550), Brahmagupta (ca. 598-665), Bhaskara (ca. 600-680), and Aryabhata II (920-1000). Brahmagupta's own *siddhānta*, titled *Brāhmasphuṭasiddhānta* (628), was translated into Arabic as *Zij al-Sindhind* (The Indian Astronomical Treatise, 770), marking an influence on Islamic astronomy (Blake, 2016, pp. 15–18). Conversely, the establishment of sultanates in India, such as the Delhi Sultanate (est. 1206), led to the adoption of Greco-Islamic astral traditions (Plofker, 2015, p. 1987).

Looking specifically on the Sanskrit-Malay contribution to Philippine astronomy, we can identify several additions to the foundational Austronesian paradigm: (1) a label for astral science or scientist, (2) new timekeeping methods, and (3) astronomical words and concepts that are associated with Indian-Malay mythology, religion, and culture. By separating these "additions," we are also assuming that the basic astronomical words and concepts from Austronesian languages remained, either maintained in their original form and meaning, or slightly modified. (This would also be the case for Arabic-Malay, to be shown later.) Our main dated document here is the 10th century Laguna Copperplate Inscription, to be coupled with late 19th century language materials on Mindanao.

3.1.1 Jyotisha as Science or Scientist

A 10th century receipt of debt acquittal, the Laguna Copperplate Inscription (LCI) contains Old Malay words and Sanskrit borrowings in Jawi, a Malay adaptation of the Arabic script. In the opening of the text, an important word appears: *jyotisha*. It was interpreted in various ways by scholars.

(1) "Hail! In the Saka-year 822; the month of March-April; according to the astronomer [*jyotisha*]: the fourth day of the dark half of the moon; on Monday" (Postma, 2005)

(2) "Greetings! Shaka year 822, month of Waisakha according to the stars [*jyotisha*], fourth day of the waning moon, Monday" (Santos, 1996)

(3) "Hail! Elapsed Śaka year 822, month of Vaisākha according to the astral sciences [jyotisha], fourth of the waning fortnight, a Monday" (Clavé & Griffiths, 2022)

The shift from 'astronomer' to 'stars' to 'astral sciences' indicates the increasing awareness of scholars about the meaning and use of the term, not only in its Indian but also Malay and Javanese contexts. In what can be considered as the most definitive attempt to read the LCI, Clavé and Griffiths (2022, p. 188) defined *jyotiṣa* in the LCI:

> *jyotiṣa* (1): According to Amrit Gomperts, "Jyotiṣa is the general Sanskrit word for Indian astronomy, astrology and divination, while the Old Javanese word jyotiṣa means 'astrologer.'" In fact, the word can designate both astral science and a specialist thereof in Sanskrit. Although a person called Bhagavanta Jyotiṣa occurs in the Old Javanese Palepangan inscription (906 CE), line 3, and Postma has interpreted diṁ jyotiṣa as "according to the astronomer," it seems more likely to us that the science rather than the expert is intended here.

In the context of Indo-Malay reception, Bambang Hidayat also cited another study by Gomperts indicating "that the Sanskrit astronomy text *jyotisa* brought over from the present Southeast Asian region received only very slight modifications" (Hidayat, 2000, p. 376). However, in the case of LCI, Clavé and Griffiths suggested a different scenario. Although the need for precise dating is crucial for the traditional *jyotisha*, especially since it is used for performance of sacred rituals (Blake, 2016, pp. 14–15; Dallapiccola, 2002, pp. 104–105; Plofker, 2015, p. 1983), Clavé and

Griffiths (2022, p. 198) emphasized that "the way the date is expressed reveals simultaneously a clear impact of Javanese documentary culture, some agreement with Malay documentary culture, and a small (possibly local) adaptation of Malay and Javanese patterns." Nonetheless, the terms that appeared in the LCI was based on the Indian *pañcāṅga* ('five-element' calendar system) from the popular *Sūrya Siddhānta* (Clavé & Griffiths, 2022, p. 196; cf. Blake, 2016, pp. 15–16). This dating formula, Clavé and Griffiths argued, can also be found among Old Malay and Old Javanese inscriptions, like the Talang Tuwo stone inscription from South Sumatra and the Humanding copperplate inscription from Central Java, respectively. The use of such dating system was possibly so popular that the term for year or era, *saka*, was even attributed to the coronation year of Aji Saka (Aji Soko or King Syaliwohono), the legendary founder of Java (Ma'u, 2019).[10] The difficulty in determining the exact meaning and function of *jyotisha* in 10th century Philippines resides partly in its unique appearance. An example of "hapax legomenon" or a word that occurs only once in a text or a body of texts, Clavé and Griffiths (2022, p. 198) wrote that "the use of the words diṁ jyotiṣa finds no analogy in any Indonesian dating formula that we know." Other comparable inscriptions, as identified above, did not conjure the word for 'astral science/astronomy' or 'astronomer/astrologer' to justify the validity of the date. Thus, more sources are needed to properly examine the historical role of *jyotisha* in Philippine proto-modern astronomy.

[10]There are three calendars in Java, into which adds the Christian (Julian) calendar (starting with 1 Anno Domini or A.D.): the Javanese Hindu calendar, using the Saka or Soko era (78 CE), the Islamic calendar, using the Hijrah era or Anno Hegirae in Latin (622 CE), and the Islamic Javanese calendar implemented in 1633 by Sultan Agung Anyokrokusumo of Mataram, which combines the two preceding calendars (see Ma'u, 2019).

3.1.2 New Timekeeping Methods

Astronomy is closely linked with chronology, as once articulated by the German astronomer and mathematician Johannes Kepler (see Knickerbocker, 1927, pp. 29-35, esp. p. 31), and such linkage is not only confined in Europe, but can also be observed in other scientific traditions such as those in the Indo-Malay Archipelago and the Philippines (Ambrosio, 2010; Ammarell, 2008; Hidayat, 2000; Manapat, 2011; Ma'u, 2019). Aside from words in local mathematics,[11] Sanskrit-Malay influences can also be seen in astronomical timekeeping.

Kutika, *kutikaan*, *pakutikan*, *putikaan*, or *pati kiraan* are almanacs or astrological charts made and used by Muslim Filipinos and Indonesians. Among these texts one can find surviving Sanskrit names that possibly hailed from the pre-Islamic Malay world and were preserved through writing. The *kutika* can therefore be a textual proof of concepts and practices that subscribe to the so-called "folk Islam"—especially since astrology is traditionally forbidden by Islamic sects, if not a subject of criticism by Muslim scholars and scientists (Saliba, 1992; Ziaee, 2012).[12]

Although there was a mention of Basilan *cuticaan* by the Jesuit Father Pablo Cavalleria in 1886 (Ambrosio, 2010, p. 126; Cavalleria, 1886/1903,

[11] These words are the Tagalog *yuta* (< Old Malay *yuta*, *djuta* 'one million' < Sanskrit अयुत *ayúta* 'ten thousand,' Tagalog and Maranao *laksa* 'ten thousand' (< Malay *laksa* 'ten thousand' < Sanskrit लक्ष *lakṣa* 'one hundred thousand'), Tagalog *kati* (< Malay *keti* 'one hundred thousand' < Sanskrit कोटि *kōṭi* 'ten million') and Tagalog *bahala* 'ten million; hundred million; inconceivable number' (< Malay *bahara* 'weight' < Sanskrit भार *bhārá* 'burden, load, weight') (Manapat, 2011, pp. 328–332; Verstraelen, 1960, p. 462).

[12] Ziaee (2012, p. 20) argued, "Astrology is prohibited in Islam, and there are many *hadith* from the Prophet (S.A.W.) that denies the relationship between position of stars and the events in our world."

p. 262), a detailed description can be read in the entry *pacutican* and *kotica* in Jacinto Juanmartí's (1892) *Diccionario Moro-Maguindanao-Español*. Here the Jesuit priest defined *pacutican* as a "book that contains figures, and they use these to consult and predict the time to come, as we will say later. Among the many superstitions of the Moros, they are very confused in this one, and with this they show their great ignorance and credulity" (Juanmartí, 1892, p. 88). *Kotica*, then, refers to 'hour, time' (*hora, tiempo*). Juanmartí proceeds to explain the *kotica lima*, or the five divisions of the day which "the Malays and the Moros have." In fact, there are seven divisions (*pito kotica*)[13], but the Maguindanaon "only recognize the influence of their gentile divinities in the first five hours." These five are named after Hindu deities, or in the priest's words, "superstitious deities" (*superticiosas deidades*): Mahesvara, Kala, Sri, Berma, and Bisnu.

Although briefer than Juanmartí's entries, Ferdinand Blumentritt's (1895/1896, pp. 400–401) *Diccionario mitológico de Filipinas* included the said details, referring to the chart as *pakutikan* or *aputikan*. Later in 1919, after reading Blumentritt, A.L. Kroeber (1919, pp. 199–200) mentioned the Maguindanaon *kutika* and its Hindu deities. Blumentritt remarked, "Here we see the most accurate reminiscence of the Hindu era in Philippine history," almost in the same breath as Kroeber who commented, "It is of special interest to find this precise relic of Hindu astronomy maintained among a Mohammedan people. It is likely that

[13]The seven divisions of the day are: (1) Vaktu-ikan, 6:00 - 7:00 am; (2) Vaktu-harimau, 9:00 – 10:00 am; (3) Vaktu-naga, 11:00 – 12:00 nn; (4) Vaktu maotu, 12:00 nn – 1:00 pm, (5) Vaktu asal, or matak in Malay, 3:00 pm; (6) Vaktu lujur, or gajak in Malay, 5:00 pm, and (7) Vaktu-kilala magari, twilight (*Al oscurecese el dia*) (Juanmartí, 1892, p. 88).

the introduction of Arabic writing was the cause of the preservation of the Indian practice." Kroeber is wrong, however, in saying that "these periods… appear to be based on the visible planets." These five names are not planet names in Indian astronomy.[14]

These Sanskrit names identified by Juanmartí, Blumentritt, and Kroeber in the Maguindanaon *kutika* can be compared with those recorded in the Malay *kĕtika* (Wilkinson, 1901, p. 505) and the Bugis *kutika* (Rahmatia & Christomy, 2021). Regarding the Malay *kĕtika*, R.J. Wilkinson provided the two approaches for time divisions: the *kĕtika lima* 'five ominous times' and the *kĕtika tujoh* 'seven ominous times.'

> *K[ĕtika] lima*: "the Five Ominous Times;" divination by dividing the month into periods of five days, and the days into five parts, and then working out the prevailing influence for the critical hour. The dominant influences in this case are the Hindu deities Maheswara (Siva), Vishnu, Sri, Brahma, and Kala, to each of whom a period is allotted.

> *K[ĕtika] tujoh*: "the Seven Ominous Times;" a system of divination by dividing the calendar into periods of seven days and the day into seven parts, and then finding out the dominant influence for the critical period regarding which enquiry is being made. The dominant influences in this case are the Sun and Moon, and the planets Mercury, Mars, Venus, Jupiter and Saturn (Wilkinson, 1901, p. 505).

[14]The planets in Indian astronomy are सूर्य Surya 'Sun,']चन्द्र Chandra or सोम Soma 'Moon,' बुध Budha 'Mercury,' शुक्र Shukra 'Venus,' मङ्गल Mangala 'Mars,' बृहस्पति Brihaspati 'Jupiter,' and शनि Shani 'Saturn.' See Section 3.1.3.4.

Given this information, we can say that the Maguindanaon *kotica* was slightly different from the Malay one, since it has five "special" divisions out of seven, instead of two separate sets of time. More sources, however, may prove if Juanmartí's record is accurate or not. Kroeber's error is also resolved by these Malay entries in Table 4.

Table 4. Hindu Deity Names in Maguindanaon, Bugis, and Malay

Sanskrit	Maguindanaon	Bugis	Malay
महेश्वर Maheśvara	Mahesvara	Masuwara, Masoewara	Maheswara (Siva)
काल Kālá, Kālam	Kala	Kala	Kala
श्री Śrī, Shri	Sri	Siri	S'ri, Sĕri
ब्रह्मा Brahmā	Berma	Barahama	Brahma
विष्णु Viṣṇu, Vishnu	Bisnu	Bisinong	Bisnu, Wisnu, Vishnu

Source: Blumentritt (1895/1896); Juanmartí (1892); Kroeber (1919); Rahmatia and Christomy (2021); Wilkinson (1901).

Contemporary Philippine *kutika* is still in use in Basilan and Tawi-Tawi. Through his fieldwork, Ambrosio learned about the Tawi-Tawi *putikaan*, which he compared to the Panay *signosan* and the Malay *rĕjang* according to time divisions, lunar phenomena, creatures, and geographical features (Ambrosio, 2010, pp. 39, 126–128).[15] Samuel K. Tan and Munap H. Hairulla also translated some Basilan *kutikas* written in Bahasa Sug and Jawi script (Tan & Hairulla, 2007, pp. 33–34, 71–73. 136).

[15]In May 2000, Ambrosio went to Tawi-Tawi to work as a researcher for Samuel K. Tan and Boni Elisa O. Resurreccion's (2000) book, *Tawi-Tawi: The Philippines' Southernmost Frontier*. The book has a section on *putikaan*. See Tan and Resurreccion (2000, p. 105) and Ambrosio (2003).

Going full circle, the word *kutika* and its variations are traceable to Sanskrit. Ambrosio himself rooted *kutika* and *putika* from the Sanskrit घटिका *ghaṭikā*, which he defined as 'a time period with 24 minutes.' *Ghaṭikā* is generally understood as 'time' or 'a period of time,' even extended to 'clock, watch, timepiece, timekeeper,' which can be observed in its descendants like the Hindi and Urdu *ghaṛī* and Bengali *ghôṛi*. For the *Jyotiṣavedāṅga*, "each day is divided into 30 *muhūrtas* or 60 *ghaṭikās*" (Plofker, 2015, p. 1983). The Malay *kĕtika* or *kutika* means 'moment; period of time; epoch; divisions of time with special reference to divination or astrology,' while the *kĕtika rĕjang* refers to 'time according to the *rĕjang*; lucky and unlucky days according to this system of fortune telling' (Wilkinson, 1901, pp. 323, 505). This lexical tracing is further triangulated by the common concern of the Indian *jyotisha* and the Philippine and Indo-Malay *kutika*: astrology and the casting of horoscopes (Dallapiccola, 2002, p. 105).

3.1.3 Astronomical Words Related to Indian-Malay Culture

Other Sanskrit-based words that figured in Philippine astral knowledge and practices can be categorized into the following: (1) deities and spirits, (2) heaven and hell (3) the Milky Way, and (4) eclipse. Implied in these categories is the permeation of Indian-Malay way of life, especially beliefs and religion. Given that the process of Indianization preceded Islamization, we are assuming that the Hindu-Buddhist character of these words and concepts existed first, until it developed into an Islamic one.

With regards to form, we can observe that some of the Philippine borrowings are phonetically closer to the Sanskrit original rather than

the Malay intermediary. This appears in the Maguindanaon *naraka* < Malay *neraka* < Sanskrit *náraka*, *naráka* 'hell' and the Maranao and Maguindanaon *garahana* < Malay *gerhana* < Sanskrit *grahaṇa* 'eclipse.' This phenomenon can be explained by looking at Tagalog borrowings. Regarding this, K. Alexander Adelaar (1994, p. 63) argued, "the fact that Tagalog has often retained a more archaic pronunciation than Malay is not in contradiction with the view that Malay was the vehicular language for the entry of Sanskrit loanwords in Tagalog. It shows that, at the time Malay had a lexical influence on Tagalog, Malay was much more faithful to the original Sanskrit pronunciation than it is now."

3.1.3.1. Deities and Spirits. Sanskrit-based words for deities and spirits has already incurred a lot of discussion (from Blumentritt, 1895/1896, pp. 379–380 to Scott, 1994, pp. 78–81), to the point that some scholars would even argue for a long forgotten "Indianized Philippines" (Churchill, 1977). Nonetheless, these words are relevant to our present topic because they are associated with heaven and other spiritual realms. In the original Sanskrit, देवता *devata* means 'godhead, divinity, deity.' Meaning was retained in Malay, with *dewata* being 'god with high power and position.' However, the case of Cebuano, Hiligaynon, and Tagalog borrowing is strikingly different: it "descends" to the status of 'spirit' (*diwata*), synonymous to *anito* 'spirit; supernatural being' (*Boxer Codex*, 2016, p. 17, 23f, p. 79, 3f; see also Salazar, 1968). During the Spanish *conquista espiritual*, *diwata* (spelled *divata*) was usually equated to 'demon' ("Insurrections by Filipinos in the seventeenth century", 1906, p. 87). A note by Ferdinand Blumentritt (1895/1896, p. 380) further exhibits semantic variation among the Indo-Malay peoples. The word may refer

to: (a) 'supreme being,' like in the Bolaang Mongondow ("Bolaäng-Mongondouers") *Ompu-duata* (lit. 'grandfather diwata'), and the Dayak *djewata* or *djebata*; (b) spirits, like in Javanese *dewata* or *djuwata*; (c) to underworld spirits, like in the Ngaju ("Olo-Ngadju") *djata*; (d) to angels, like in the Makassar-Bugis *rewata* or *dewata*, and the Bantik *mobuduata*; and (e) to ancient spirits, like in Batak *debata idup*.

Unlike *diwata*, the case of *bathala* shows a kind of semantic ascent. In the original Sanskrit, भट्टार *bhaṭṭāra* means 'revered, worshipful,' and by the time it appears in Old Javanese and Malay as *bhaṭāra* and *batara*, it becomes 'god.' According to Blumentritt (1895/1896, p. 370), the Dayak of West Borneo had the term *betara* or *petara* for 'god,' while the Batak of Sumatra and the Makassar and Bugis of Celebes used *batara-guru*, literally 'god-teacher.' For the Tagalogs, Bathala is 'god; the almighty; the maker of all things.'[16] An account on Tagalog beliefs assumes that Bathala's abode is in heaven *Boxer Codex* (2016, p. 79).

3.1.3.2. Heaven and Hell. With regards to 'heaven' as a religious place, it has been shown that some ethnolinguistic groups uninitiated to Islam and Christianity had no heaven-hell equivalents (Ambrosio, 2010, pp. 47–48; Demetrio et al., 1991, pp. 117–119). Rather, their cosmos is usually composed of different layers or covers, with a specific place for people. *Pugaw*, for instance, is the designated homeland, thus the inhabitants of *pugaw* are called *Ifugao*. The Ifugao equivalent for 'heaven' would be *kabunyian*; for the Kankanaey, it also pertains to the supreme

[16] See *Boxer Codex* (2016, p. 63), *Bachtala, napalnanca calgna salabat* [Bathala na may kapangyarihan sa lahat] 'god, the almighty;' de Plasencia (1589/1903, p. 186), *Badhala* as 'all powerful,' or 'maker of all things;' Colín (1663/1906, pp. 69–70), *Bathalang Meycapal*, 'God the Creator or Maker.'

being. What can be considered as "underworld," *dalom*, has no infernal connotations. It is simply located underground (Ambrosio, 2010, pp. 54–57).

Before the Christianized *langit* and *impyerno*,[17] the Hindu-Islamic heaven and hell arrived in the Philippines through Sanskrit-based words. On one hand, स्वर्ग *svargá* 'heaven, paradise; light of heaven; Indra's paradise' (Dallapiccola, 2002, p. 185) becomes *swarga* 'heaven' in Old Javanese, *surga* and *syurga* 'heaven, paradise' in Old Malay, and *syurga*, *sorga*, *surga* and *swarga* 'heaven, paradise' in Malay. Eventually, it became the Maguindanaon *sorga* 'heaven; place of the blessed' (*Compendio y breve vocabulario*, 1888, p. 83; Juanmartí, 1892, p. 207), Maranao *sorga'* 'blessed; the elect; heaven' (McKaughan & Macaraya, 1967, p. 427), Bahasa Sug *sulga'* 'heaven' (Hassan et al., 1975, p. 524), Yakan *sulga'* and *surga'* 'heaven' (Behrens, 2002/2013), Southern Sama (Sama Sibutu) *sulga* 'heaven' (Allison, 1994/2012), and Central Sama/Sinama *sulga'* 'heaven, the abode of God and the angels, and the ultimate destination of the virtuous' ("Central Sinama – English Dictionary", n.d.).[18]

[17] *Langit* can be traced to the PAn *laŋjiC 'sky,' to be later appropriated in the Christian mythology as the abode of God. *Impyerno* is obviously an import, from Spanish *infierno* 'hell,' ultimately from the Latin *infernus* 'of the lower region.'

[18] In 1886, Jesuit Father Pablo Cavalleria wrote in a letter that the Moros of Basilan have "seven heavens and seven hells to express the various rewards or punishments." The seven heavens and the rewards they have are (1) *Yattu Atúan* 'rest,' (2) *Firdéos* 'good things to eat,' (3) *Naím* 'plenty of food,' (4) *Nauá* 'the water here has the taste that one desires,' (5) *Aínum naím* 'great wealth,' (6) *Salsabila* 'golden vessels from which to drink,' and (7) *Jatard al Cots* 'pearls and diamonds.' Father Cavalleria said that "the Moros of the interior of the island are called Yácanes [Yakan], and are employed, although but little, in the cultivation of palay, sweet-potatoes, cacao, etc.," while "the Moros of the coast are called Sámales Laút [Sama Dilaut]. They are employed, although little, in fishing… [t]hey are pirates." He added, "Among the Sámales Laút, there are Joloan Moros, and Malays" (Cavalleria, 1886/1903, pp. 255–256, 262–263).

On the other hand, the Sanskrit नरक *náraka*, *naráka* 'hell' (Dallapiccola, 2002, p. 143) was borrowed by Old Javanese and Malay as *naraka* and *neraka*, respectively, with the same meaning, 'hell.' It entered Maguindanaon as *naraka* 'hell, place of the condemned,' Maranao, Bahasa Sug, and Yakan as *narka'* 'hell,' Southern Sama (Sama Sibutu) as *nalkah* 'hell,' and Central Sama/Sinama as *nalka'* 'hell, the place where the wicked are sent in the afterworld' (Allison, 1994/2012; Behrens, 2002/2013; "Central Sinama – English Dictionary", n.d.; Hassan et al., 1975, p. 524; Juanmartí, 1892, p. 144; McKaughan & Macaraya, 1967, p. 269; cf. *neraka*, *naruk* in Ambrosio, 2010, p. 39; Cavalleria, 1886/1903, p. 263).[19] *Naraka'* in Maranao means 'sinner; cursed of God; nefarious' (McKaughan & Macaraya, 1967, p. 268).[20] An 1886 account about the Basilan Moros, which were either the Yácanes (Yakan) or the Sámales Laút (Sama Laut/ Sama Dilaut/ Badjao/ Bajau Laut), mentioned that they have seven hells (*naruk*) which contain varying punishments (Cavalleria, 1886/1903, p. 263).[21]

[19]There is also *jahannam* in Central Sama/Sinama, which means 'Gehenna, a division of hell' ("Central Sinama – English Dictionary", n.d.). *Gehenna* is based on the Hebrew word *Gehinnom*, or the Valley of Hinnom, which can be considered as 'hell' or 'place of divine punishment' in the Jewish religious tradition.

[20]I used apostrophe ['] instead of [ʔ] to refer to glottal stop, in order to maintain the orthographic practice of Ambrosio (2010) and other dictionaries (e.g. Hassan et al., 1975; "Central Sinama – English Dictionary", n.d.). In their 1967 dictionary, McKaughan and Macaraya used [q] to denote glottal stop (see p. viii); in the subsequent versions of the dictionary (1996 and 2012), apostrophe ['] is used.

[21]These are (1) *Naruk Yahanna* ("here [there is] confusion"), (2) *Naruk Sacar* ("[here there are] contrivances and animals for inflicting torture"), (3) *Naruk Sigmilti* ("[here there are] tortures in language"), (4) *Naruk abus* ("[here there are] most ugly things"), (5) *Naruk Jauya* ("here one is run through with spears"), (6) *Naruk Zaalt* ("here one suffers thirst"), and (7) *Naruk Jamia* ("here one is tortured with fire") (cf. footnote 18).

With these, we assume that there was a remarkable shift from the Hindu concept to Islamic. In Bahasa Sug and Yakan, hell is also called *jahannam*, after the Arabic جَهَنَّم *jahannam*. In Bahasa Sug, it specifically refers to 'a division in hell in which the most severe punishment is given; also an evil-minded person' (Hassan et al., 1975, p. 315). In Yakan, Dietlinde Behrens (2002/2013) noted that the compound word *narka' jahannam* 'the fiery pit of hell' is thought to be "more severe than just *narka*'." Recorded in 1886, one of the seven hells for Basilan Moros is the *Naruk Yahanna*, wherein people would suffer through "confusion" (Cavalleria, 1886/1903, p. 263). The pre-existence of these religious concepts among Mindanao and Sulu communities would help the Spanish missionaries in relaying the Christian idea of heaven and hell. In a Maguindanaon wordlist, *su languit* 'sky' (*el cielo*) is differentiated from *su sorga* 'heaven' (*la gloria*) (*Compendio y breve vocabulario*, 1888, p. 83).

3.1.3.3. The Milky Way. Bahasa Sug, Mapun, and Sama, languages spoken in the Sulu Archipelago, have the word *naga*, which pertains not only to 'snake' or 'dragon' ("Mapun Dictionary", 2019; Hassan et al., 1975, p. 417), but also to 'Milky Way' (Ambrosio, 2010, pp. 145–148). To add, *mala a naga* is the Maranao Milky Way (McKaughan & Macaraya, 1967, p. 236; Ambrosio, 2010, p. 147). A similar case appears among the Bugis, whose term *bintoeng nagae* 'the dragon' refers to the Milky Way (Ammarell, 2008, p. 330). The Philippine *naga* is probably borrowed from Malay *naga* 'dragon,' as seen not only in the nagas of Bahasa Sug, Mapun, and Sama, but also in Maguindanaon *naga* 'dragon or mythical serpent' (Juanmartí, 1892, p. 142), Maranao *naga* 'dragon' (McKaughan & Macaraya, 1967, p. 266) Yakan *naga* 'dragon' (Behrens, 2002/2013),

and Southern Sama (Sama Sibutu) *naga* 'dragon' (Allison, 1994/2012). A Central Sama/Sinama dictionary defines *naga* as 'a mythical dragon which is said to swallow the moon during an eclipse, but which can be compelled to disgorge it by the beating of gongs; a snake spirit which may locate itself in a human body and bring about the ill health and ultimately the death of his nearest relatives' ("Central Sinama – English Dictionary", n.d.). According to Blumentritt (1895/1896, p. 420; see also Ambrosio, 2010, p. 146), the Teduray ascribe *naga* to a large, eight-headed fish that lives in the middle of the sea. Further, Blumentritt's note on the Batak, Ngaju, and Dayak describes their nagas, *naga-padoha*, *naga-galang-pelak*, and *naga-pusah*, respectively, as a giant creature that causes earthquake (Blumentritt, 1895/1896, pp. 420–421; see also Ambrosio, 2010, p. 146). Ultimately, these words are from the Sanskrit नाग *nāgá*, also *nagi* or *nagini* 'snake, serpent,' prominently known in Hindu, Buddhist, and Jaina mythology and folklore as half-human, half-snake, semi-divine beings (Dallapiccola, 2002, pp. 139–140). It is worth noting that although Maguindanaon has *naga* 'dragon or mythical serpent,' it has a different equivalent for Milky Way: *Lalan*, *Lalan isumesen sa Alungan*, or *Lalan na Langaw* (Ambrosio, 2010, p. 183; *Compendio y breve vocabulario*, 1888, p. 84; Juanmartí, 1892, p. 28).

3.1.3.4. Eclipse. Two words from Sanskrit are associated with eclipse: *grahaṇa* and *rahu*. On one hand, ग्रहण *grahaṇa* 'eclipse' made its way to Javanese and Malay through *grahana* and *gerhana*, respectively, and later to Maguindanaon and Maranao, with *garahana* 'eclipse' (Ambrosio, 2010, p. 39; *Compendio y breve vocabulario*, 1888, p. 85; McKaughan & Macaraya, 1967, p. 111).

On the other hand, the Tagalog *laho*, Kapampangan *lawo*, Bahasa Sug *lahu'* and Sama *lahu'* and *lahuh* are probably borrowed from the Malay *rahu*, which ultimately descended from the Sanskrit राहु *Rāhu*. In Hinduism, Rāhu is one of the *ashura* ('demon') who represents the solar eclipse and the ascending lunar node, partnered with केतु Ketu who embodies the lunar eclipse and the descending lunar node. Rāhu and Ketu are two of the *navagrahas* (nine planets) of the Indian astronomy, the others being सूर्य Surya (Sun), चन्द्र Chandra or सोम Soma (Moon), बुध Budha (Mercury), शुक्र Shukra (Venus), मङ्गल Mangala (Mars), बृहस्पति Brihaspati (Jupiter), and शनि Shani (Saturn) (Dallapiccola, 2002, pp. 144–145). However, when these proper names were received by Javanese and Malay, and later by Philippine languages, they attained new meanings. Thus, *Rahu* ceased to be a name for an ashura that causes the solar eclipse. When ancient Tagalogs spoke of it, it was a "monster" or a giant serpent that devours the sun or moon (Ambrosio, 2010, pp. 39, 137–138; Blumentritt, 1895/1896, p. 402). Its Bisayan counterpart could be the *bakunawa* 'bent snake' (Mojares, 2013, pp. 87–88; Porras, 1919), or the Central Sama/Sinama *naga*, as mentioned earlier. Later, the Tagalog word simply refers to the eclipse, as seen also in the Kapampangan *lawo* 'the darkening of the moon in an eclipse,' Bahasa Sug *lahu'* 'eclipse of the sun or moon,' and Central Sama/Sinama *lahu'* 'an eclipse; eclipsed, of sun or moon' (Bergaño, 1732/2007, p. 210; "Central Sinama – English Dictionary", n.d.; Hassan et al., 1975, p. 337). Nonetheless, the Tagalog *laho* denotes an act of disappearance.

This semantic change in Tagalog—from sun/moon-eating creature to an astronomical phenomenon—also appears in Southern Sama (Sama Sibutu). *Lahuh* initially refers to 'a monster which eats the moon or sun

during eclipses.' Presently, as K.J. Allison (1994/2012) notes, *lahuh* is used only in idiomatic phrases which are the "Sama way[s] of expressing eclipse." These include *kakan lahuh bulan* 'lunar eclipse' (lit. 'monster eating the moon') and *kakan lahuh llow* 'solar eclipse' (lit. 'monster eating the sun').

Given this Sanskrit-Malay contribution to Philippine astronomical knowledge and practices, we can now discuss another layer to the paradigm: the Arabic-Malay.

3.2 Arabic-Malay

The general term for 'knowledge, science' in Arabic is *ʕilm* عِلْم (plural: عُلُوم *ʕulūm*). Like the Latin *scientia* in its 14th century context (see Williams, 1976, pp. 215–218), *ʕilm* "could be knowledge of the natural world, as well as knowledge of religion and other things" (Masood, 2009, p. xxi). Equivalent to astral science are varied extensions of *ʕilm*: فَلَك *falak* 'orbit; sphere; sky; outer space; universe; heaven; orb; circulation,' نُجُوم *nujūm* (singular: نَجْم *najm*) 'celestial bodies; stars; planets; luminaries,' and تَنْجِيم *tanjīm* 'astrology,' derived from نَجَّمَ *najjama* 'to observe the stars; to predict future from the stars; to practice astrology.' In varying contexts, Islamic astral science is referred to as *ʿilm al-nujūm* (Schmidl, 2022, p. 252), *ʕilm al-falak* (Ziaee, 2012, pp. 20–21), or *ilmu falak* (Ma'u, 2019, p. 91). With نجم *necm* (plural: نجوم *necum*) derived from the Arabic *najm* and *nujūm*, the Ottomans used *ilm ul nucum* 'knowledge of stars' and *ilmu akvami nucum* 'astrology' (Ozcep, 2020). Later, Ottoman scientists would use another word that approximates a modern meaning, an *ilm* that is based on "reason, experiment, and evidence"— *fenn* (plural:

fünûn) 'tools; techniques' (Martykánová, 2020; Masood, 2009, p. xxi; Ozcep, 2020).

ʕIlm sailed to the Malay world and became *'ilmu* 'knowledge, science; divination, sorcery.' R.J. Wilkinson's Malay dictionary provides the term *'ilmu bintang* 'astronomy,' along with *'ilmu hitongan* and *'ilmu kira-kira* 'arithmetic,' *'ilmu hikmat* 'a magic art of any sort; magical practices,' *mĕmbuwat 'ilmu* 'the practice of black art,' and *bĕr'ilmu* 'wise; learned; erudite' (Wilkinson, 1901, p. 438). The journeying word was warmly embraced by the preconquest Filipinos, leading to the existence of Tagalog *alam* 'to know; known' (Baklanova, 2017, p. 38; Potet, 2014, p. 132), Maguindanaon *ilmu* 'science' (Juanmartí, 1892, p. 72), Maranao *alim* 'expert; sage; philosopher; religious authority' and *ka'alim* 'science; knowledge; education' (McKaughan & Macaraya, 1967, pp. 11, 145), Mapun *alim* 'man who has lots of religious knowledge' ("Mapun Dictionary", 2019), Yakan *alim* and *ālim* 'a person gifted with second sight; a seer' (Behrens, 2002/2013), Bahasa Sug *ilmu'* 'esoteric, magical, or supernatural knowledge' (Hassan et al., 1975, p. 300), Central Sama/Sinama *ilmu'* 'esoteric or magical knowledge; power from a supernatural source' ("Central Sinama – English Dictionary", n.d.), and Southern Sama (Sama Sibutu) *ilmuh* 'religion; knowledge of magic rituals; secret formulas; magic spells; occult knowledge' (Allison, 1994/2012).

Since no equivalent Arabic-based Philippine term for 'astronomy' or 'astrology' has been found yet, we are led to subsume this 'science of stars' among these Arabic-based terms for knowledge and science. In fact, like Malay, terms under *ilmu* in Juanmartí's Maguindanaon dictionary are highly suggestive of semantic extensions: *ilmu illahi* 'the science of god;

theology,' *ilmu cambilang* 'the science of counting; arithmetic,' and *ilmu bayug* 'poetry' (Juanmartí, 1892, p. 72).

As implied above, obvious candidates for finding Arabic-Malay astronomical words are those languages whose speakers were Islamized. With the exception of prehispanic Islamized Tagalogs, these speakers mainly resided in the Philippine South, belonging to the following ethnolinguistic groups: Tausug, Sama, Badjao, Yakan, Jama Mapun, Molbog, Palawan, Kalibugan, Kalagan, Sangil, Iranun, Maranao, and Maguindanao (Donoso, 2013). These Islamized groups are further differentiated into various communities or states, interacting with each other or with the non-Islamized Lumad groups (Rodil, 2017). The languages they spoke more likely retained, if not recontextualized, some enduring Sanskrit-Malay words. A historiographical problem, however, arises here. Except for the Tagalog region, most of these Muslim communities in the Philippine South resisted Spanish colonialism. It was only in the 19th century when a higher degree of intrusion in Mindanao was achieved, mainly through the Jesuit policy of attraction accompanied by Spanish offensives. By the early 20th century, after an initial peace time, Sulu would be brutally pacified by the new colonizer, the United States, as seen in the Battles of Bud Dajo (1907) and Bud Bagsak (1913) in the highlands of Jolo.

In relation to our present task, the most documented Muslim ethnolinguistic group in late 19th century is Maguindanao, whose heartland is at the Pulangi River Valley. Here was born the Maguindanao Sultanate of 1515, founded by Sharif Kabungsuwan. In the 19th century, as observed by the Jesuits, Maguindanaon language acted as a lingua franca, spoken not only by the Maguindanao but also by their Teduray neighbors (Arcilla,

2000). The extent of Maguindanaon documentation in the 19th century can be inferred through two books which are extensively cited here: *Compendio y breve vocabulario* (1888), by a Jesuit missionary ("un padre missionero de la Compañia de Jesus"), and Jacinto Juanmartí's (1892) two-part *Diccionario Moro-Maguindanao-Español*. Historian Isagani R. Medina (2005, p. 65) posits that the *Compendio y breve vocabulario* was written by the same priest, Juanmartí, despite authorial anonymity. Serving as the local superior from 1874 till his death in 1897, Juanmartí (1832-1897) was instrumental for the Rio de Grande mission centered in Tamontaka, Cotabato (now in Cotabato City). Juxtaposed to these accessible sources are the language manuscripts on "Lutao" (Sama) and Maranao that are yet to be found and consulted (Medina, 2005, pp. 61–62).

For this section, we are looking mainly at the (1) Arabic-Malay words that entered Philippine astronomy. Given the astronomical foundation set by Austronesian through basic words, to be coupled with expansions through Sanskrit-Malay, the Arabic novelty is apparent in the borrowing of planet names. Along with these Arabic-based planet names are the appearance of (2) Malay-based words, specifically those referring to star categories, and (3) words that hinted European contact.

3.2.1 Arabic-based Planet Names

The *Compendio y breve vocabulario* (1888, p. 84) includes planet names that are ultimately from Arabic, except Hertsel (Uranus) (Table 5). Moreover, the case of the Maguindanaon *duña* 'earth' (*Compendio y breve vocabulario*, 1888, p. 83) exhibits closer affinity to Arabic-Malay (*dunia* 'earth' < Arabic دُنْيَا *dunyā*, 'lower place, world') rather than Sanskrit-

Malay (*bumi* 'earth' < Sanskrit भूमि *bhŭmi* 'earth') (Wilkinson, 1901, p. 300). Unlike Sanskrit-Malay, Arabic-Malay was able to secure an imprint in Philippine astronomy through this Maguindanaon borrowing of planet names. It also serves as evidence of the entry of modern astronomical ideas. The inclusion of Hertsel (Uranus) is striking, as well as the arrangement of planets that implies a heliocentric model. This suggests that the Maguindanaon speakers were already knowledgeable of a planetary system, probably even a sun-centered one, before the entry of Western astronomy either through the Spanish or American colonizers.

Table 5. Arabic-based Maguindanaon and Malay Planets

Maguindanaon	Malay	Arabic	Equivalent
Utarid	*Utarid*	العطارد *al-'Utarid*	Mercury
Zahrat	*Zuhrah*	الزهرة *al-Zuhara*	Venus
Marik	*Marikh*	المرّيخ *al-Marrikh*	Mars
Mustari	Musytari	المشتري *al-Mushtari*	Jupiter
Zajal	*Zuhal*	الزحل *al-Zuhal*	Saturn
Hertsel	*Uranus*	القزح *al-Quzah*	Uranus

Source: *Compendio y breve vocabulario* (1888, p. 84); Wilkinson (1901).

A curious entry, however, appears in Juanmartí's (1892, p. 184) dictionary.

> RAJA – Star – The seven stars that, according to the Moros, exert their influence on the twenty-four hours of the day, and are the following: The Sun, the Moon, Jupiter, Mars, Venus, Mercury and the Earth.

> RAJA – Bintang – Los siete astros que, según los moros ejercen su influencia sobre las veinte y cuatro horas del día, y son los siguientes: El Sol, la Luna, Júpiter, Marte, Venus, Mercurio y la Tierra.

Raja 'lord, ruler' is clearly Sanskrit-based, although it has been incorporated into the Sulu and Maguindanao sultanates for specific positions such as *rajah muda* ('young lord:' prince or heir), and *rajah laut* ('sea lord:' admiral) (Scott, 1994, p. 176). Here, *raja*, as a kind of 'ruling *bintang*,' is comprised of a seven-bodied planetary system. This can be compared to the Malay *kětika tujoh*, although in this case, the Maguindanaon had no Saturn; instead, they had Earth.

Nonetheless, the significance of the Arabic-based planet borrowings can be further assessed in light of Ambrosio's observation. He stated that, "It appears that the Filipinos, both past and present, do not recognize planets as 'wandering stars.' They treat the planets Venus and Jupiter as either morning or evening stars. They do not differentiate the two, nor do they treat them as a phenomenon apart from that of a star" (Ambrosio, 2010, p. 185). In similar vein, Blust et al. (2023) pointed out in the Ifugao *bitúwon* 'star' that it is "also planet since the Ifugao do not distinguish between the two." With this they define *talló* not only as 'bright morning or evening star' but also 'the planet Venus.' Such conflation of stars and planets has been pointed out by colonial observers, like Juan de Plasencia, who wrote in 1589 that the "some of [the Tagalogs] also adored the stars, although they did not know them by their names, as the Spaniards and other nations know the planets—with the one exception of the morning star, which they called Tala" (de Plasencia, 1589/1903, pp. 188–189). Other ethnolinguistic groups have more specific

star names, which correspond to the planets Venus, Mars, Jupiter, and Saturn (Table 6).[22]

Table 6. Planets and Local Equivalents

Planet	Local equivalent
Venus	Tagalog: *Tanglao Daga* Tagalog: *Tanglao Daga* Ibaloi: *Mamawas* Kankanaey: *Batakagan* Kankanaey: *Bitakagan* Ifugao: *Talló*, also 'bright evening or morning star' Bisayan: *Macadadamlag* Sama/Bahasa Sug: *Lakag* Sama/Bahasa Sug: *Maga*, also 'morning star'

[22]Ambrosio (1999, pp. 90–91) explained why names overlap in the specific case of Tawi-Tawi stars/planets: "there are two more lone stars identified by the people of Tawi-Tawi: the Tunggal Bahangi, the evening star, and the Lakag or Maga, the morning star. According to Jamrun, the Mapun people call the morning star Kababbasan and the evening star Kababbasan madusta. Last April, it was Venus that Indalhati and Hadji Hamad identified as Tunggal Bahangi, which appeared then in the west from twilight till nine o'clock in the evening. Hadji Hamad also called it Duga-Duga. Meanwhile, it was Jupiter that was identified as Lakag or Maga, which appeared then in the east before dawn… If to be studied carefully, one can say that what are referred to as Tunggal Bahangi and Lakag are not fixed. It can be Venus, Mars, Jupiter, and Saturn, depending on seasonal positions. These are the only bright 'stars' that can appear near the east before the sun rises or near the west before the sun sets. Venus is often identified as Tunggal Bahangi or Lakag because it is the only one among the four big 'stars' that frequents these positions. Venus does not veer away from the sun, thus it only changes position in the east and west. Mars, Jupiter, and Saturn's orbits are distant from the sun, thus they can reach the zenith and be seen the whole nighttime unlike Venus."

Planet	Local equivalent
	Sama/Bahasa Sug: *Duga-Duga* Sama/Bahasa Sug: *Tunggal Bahangi* Palawan: *Antatala* Palawan: *Buntatala*
Mars	Sama/Bahasa Sug: *Lakag* Sama/Bahasa Sug: *Tunggal Bahangi*
Jupiter	Ibaloi: *Mamawas* Sama/Bahasa Sug: *Lakag* Sama/Bahasa Sug: *Maga*, also 'morning star' Sama/Bahasa Sug: *Tunggal Bahangi* Palawan: *Anak Datu*
Saturn	Palawan: *Anak Datu*

Source: Ambrosio (1999) and Ambrosio (2010); Blust et al. (2023); Hassan et al. (1975); Ramos (2022).

3.2.2 Malay-based Star Categories

Aside from Arabic-Malay planet names, the *Compendio y breve vocabulario* also included words for comet (*bituun bericor-berasap*), fixed star (*bituun tatap*), and planets (*bituun beridar*). Shown here is how Maguindanaon maintained the use of *bituun* (from PAn *bituqen 'star'), followed by Malay-based words that served to extend the star meaning. Thus, the Maguindanaon comet is literally a 'star with tail' or 'smoking star,' fixed star a 'gazing or watching star,' and planet a 'revolving star.' Although Maguindanaon uses *bituun* as base word for these astro-

nomical concepts, Juanmartí's (1892, p. 27) dictionary also included the Malay-based *bintang* 'star.'

For comet, the practice of extending the star meaning is also apparent in other languages (Table 7). In Tagalog, comets are called *bituing may sombol* 'star with a pennant' (Noceda & de Sanlucar, 1832, p. 375). Due to this parallelism, as well as the assumed experience that the passing of comets, like meteors and shooting stars, can be seen by naked eye, we may say that identifying and naming comets is most probably a premodern practice. The case is different for fixed stars and planets, because they reflect an already proto-modern or modern concept. Fixed stars and planets are present in astronomical texts, from Ptolemy's *Almagest* to Copernicus' *De revolutionibus*. The word planet, in fact, is derived from the Ancient Greek πλάνητες ἀστέρες *plánētes astéres*, 'wandering stars.' To introduce the idea of 'wandering' or movement is to distinguish this kind of 'stars' from fixed stars. Therefore, *bituun tatap* and *bituun beridar* recorded in a 19thcentury text signals a Maguindanaon reception of a proto-modern or modern astronomical concept.

Table 7. Comet, Fixed Star, and Planet in Maguindanaon

Astronomical body or phenomenon	Maguindanaon	Possible root
comet (*cometa*)	*bituun bericor-berasap*	*bituun* < PAn *bituqen 'star' *bericor* < Malay *ékor* 'tail' / Old Javanese *ikū*, *ikuh* 'tail' < PAn *ikuR 'tail'

Astronomical body or phenomenon	Maguindanaon	Possible root
		berasap < Malay *bĕrasap* 'to be smoking—as embers; to be covered with vapour—as a mountain summit' < Malay *asap* 'visible vapor; steam; smoke' / Old Javanese *asep* incense < PWMP *asep 'incense, ritual smoke' (cf. Malay *bintang bĕrekor*, *bintang bĕrasap*, 'comet')
fixed star (*estrella fija*)	*bituun tatap*	*bituun* < PAn *bituqen 'star' *tatap* < Malay *tatap* 'careful visual examination; the act of looking over anything with a view to finding flaws or deficiencies, if any; watching, looking out' (cf. Malay *bĕrtatap*, *menatap* 'to watch, to gaze')
planet (*planeta*)	*bituun beridar*	*bituun* < PAn *bituqen 'star'

Astronomical body or phenomenon	Maguindanaon	Possible root
		beridar < Malay *bĕridar* 'revolving' < Malay *idar*, *edar* 'change of position; revolution; circulation; rotation; movement' (cf. Malay *bintang bĕridar* 'wandering star, planet')

Source: Blust et al. (2023); *Compendio y breve vocabulario* (1888); Wilkinson (1901).

3.2.3 Clues of European Contact

The *Compendio y breve vocabulario* and Juanmartí's Maguindanaon dictionary also hinted European contact. We can identify two words related to astronomy. First, already mentioned earlier, is *Hertsel*, the Maguindanaon equivalent for Uranus. It is named after Sir William Herschel (1738-1822), a German-born British astronomer who discovered the planet in March 1781 (see Knickerbocker, 1927, pp. 109–121; Wolf, 1961, pp. 113–120). Two years after the discovery, Herschel gave the name *Georgium sidus* (George's star) in honor of King George III, but it did not gain popularity outside Britain and Herschel's hometown, Hanover. Rather, other astronomers, such as the French, used the name *Herschel*. In 1782, German astronomer Johann Elert Bode proposed the name Uranus, after the Greek titan, and by 1850 it was established as the international name. How Herschel became the Maguindanaon *Hertsel* is yet to be known. Given that there is an Arabic Uranus, القزح *al-Quzah*, it seems that the Maguindanaon borrowing might have come ultimately

from a European source, and such an epistemic lag was maintained until the time of Juanmartí's record. A parallel case can be found in Hawaiian, which uses the Herschel-derived *Hereekela* or *Heleekela* for planet Uranus (Andrews, 1865, p. 159; Andrews, 1922, p. 120; Pukui & Elbert, 1986, p. 65).

The other word is *bituun bacá* or simply *bacá*, pertaining to the constellation Taurus (Juanmartí, 1892, pp. 16, 28). Under the entry for *bituun* 'star,' this is grouped with *Utara* or *Bituun-Vtara* (Polaris), *Guiubar* (Orion), *Bintang-biduc*, *Bituun-Biduc* or *Biduc* (Ursa Major), *Langau* or *Cartica-Langau* (Pleiades), *Macabengas* or *Macabengas-Timor* (morning star), *Mascarumi* or *Mascarumi-Petang* (afternoon star), *Lalan* or *Lalan isumesen sa Alungan* (Milky Way), and the already mentioned *bituun tatap*, *beridar*, and *bericor y berasap* (Juanmartí, 1892, p. 28; see also Ambrosio, 2010, pp. 164, 168, 183; *Compendio y breve vocabulario*, 1888, p. 84).[23]

Bacá might be borrowed either from Spanish or Portuguese *vaca* 'cow,' inherited from the Latin *vacca*.[24] *Baca* as solely Taurus, and not as cow, is implied by the entries *sapi a babay* 'female cattle' and *bacá* 'beard, jaw' (*la barba, quijada*) in Juanmartí's (1892, pp. 16, 197) dictionary. *Sapi* in Malay pertains to 'a cow or ox' (Wilkinson, 1901, p. 362).

[23]Ambrosio speculates that *Tatap* is "'fox star' (?)" (2010, p. 183). I am not sure what he meant, but perhaps this can be clarified by the Malay *tatap* 'careful visual examination; the act of looking over anything with a view to finding flaws or deficiencies, if any; watching, looking out,' more so by the *Compendio y breve vocabulario*'s (1888) identification of *bituun tatap* as 'fixed star' (*estrella fija*). Therefore, it is not a star name but rather a category. *Tatap* as a separate entry is also absent in Juanmartí's dictionary.

[24]For parallel cases, see the Tagalog borrowings *banyaga* 'foreigner' (< Malay *běniaga* 'trade' < Indo-Portuguese *veniaga* 'merchant, merchandise') and *linggo* 'Sunday, week' (< Malay *minggu* 'Sunday, week' < Portuguese *domingo* 'Sunday') (Wolff, 1976, p. 351).

However, this proposed Spanish or Portuguese rooting of Maguindanaon *baka* may still be challenged by the fact that the Teduray and the Bukidnon also have *Baka* constellations. The Teduray see *baka* as jaw of a wild boar. In Maranao, *baka?* (spelled *baka'* or *bakaq*) pertains either to 'star indicating right time for slash and burn method' or to 'chin' (McKaughan & Macaraya, 1967, pp. 36–37; see also Ambrosio, 2010, p. 183). Is the starry image of 'jaw' or 'chin'—instead of the foreign 'cow'—the unifying thread for Maguindanaon, Maranao, and Teduray? The Teduray *Baka*'s equivalent is the Hyades, seen as part of Taurus (Ambrosio, 2010, pp. 173–174).[25] Basing on the ethnographic study of Fay-Cooper Cole, Ambrosio (2010, p. 174) presumed that *Baka* is also the Hyades for Bukidnon.[26] Nonetheless, by the 20th century, Tagalog vernacularists would use *Damulag* for Taurus (see Ignacio, 1921; Lopez, 1963), while the Bisayans and Ilokanos would retain the Spanish *Tauro* (see Alfar, 1950/1965; Guirnalda, n.d.; Porras, 1919).

[25]In Teduray myths, Baka is one of the adopted children of Keluguy, whose nickname is Fegeferafad. The other two kids are Baka's cousins, Kufukufu and Seretar. Fegeferafad corresponds to a part of the Canis Major, Canis Minor and Gemini; Kufukufu, also meaning 'flies,' to Pleiades; and Seretar, the warrior, to a part of Orion (Ambrosio, 2010, pp. 173–174).

[26]Given this, we can think of two scenarios. First, if *baka* came from Maguindanaon (whether from another source like Spanish/Portuguese or not), their Teduray neighbors would have adopted it; their fellow Muslims, the Maranao, might have borrowed it too, further relaying it to the Bukidnon. Second, if *baka* is not from Maguindanaon, it might have come from foreign or non-foreign sources, like Teduray, Bukidnon, or Maranao.

4 Conclusion

As historian Nicholas Tarling (1966) wrote, "If up to the turn of the fifteenth century, the major population movements were overland, outside influences, perhaps even migrations were reaching Southeast Asia by sea, placed as it was at the confluence of world routes," we are left to think, as this paper nears its conclusion, that the phrase "sea unites and mountains divide" (McFarland, 1994, p. 76) has been best reflected by this history of Philippine proto-modern astronomy. We are left, moreover, to imagine that as Sanskrit and Arabic astronomical words sailed to the Malay world and eventually to the Philippine communities, transporting new scientific ideas and practices, they were, in turn, guided by the stars.

In sum, the paper examines the Philippine reception of foreign astronomical knowledge and practices before the advent of Euro-American colonialism. We have identified first the Austronesian paradigm which served as the foundation of astronomical knowledge. By so doing, we are able to recognize the latter additions, marked by Sanskrit-Arabic influences through Malay. The basic astronomical words are Austronesian: words for sky or heaven, sun, moon, star, and meteors. Sanskrit-Arabic-Malay words reflect new concepts and methods. New concepts are usually expansions of precedent glosses: 'star' is further qualified as 'smoking star' and 'star with a tail' (comet), 'watching star' (fixed star), or 'moving star' (planet), and 'heaven' expands its religious meaning, resulting to a counterpart, 'hell.' New methods connote socio-economic concerns, if not novel ways to read the world: dating a debt receipt renders reliability, daytime deity names amplify astrological authority,

and words for measurement and calculation inform us about the ones who count and the ones being counted.

We have strongly emphasized the role of Malay mediation in relaying these foreign astronomical knowledge and practices. Though Indian and Islamic astronomy had already achieved their golden ages by the 16th century—the time of European encounter in these islands— we cannot say yet that these innovations had been received and used *in the same form* by Philippine communities. The decision to appreciate (and to appropriate, however devoid of original context) rests more on the side of receivers of knowledge, rather than donors.

Thus, as recommendation for future research, the existence of Sanskrit-Arabic-Malay astronomical words in Philippine languages needs to be further scrutinized. Through this paper, we have discussed language contact through the borrowings of astronomical words. But how salient, really, were these words? In what specific ways were they utilized by precolonial Filipinos, vis-à-vis by their neighbors in the Indo-Malay Archipelago, and even in the larger region of Southeast Asia and the Pacific? The Jesuit documentation of Arabic-based planets in 19th century Maguindanaon is a notable feat, but we do not know yet how significant these terms were, or how were they subjected to local understanding or use. More detailed historical sources and ethnographic accounts would help resolve these issues.

From the 16th to the 19th century, as Spanish colonialism gradually "reduced" Philippine communities, we might think that astronomical proto-modernity would eventually "mature" (see Hook, 2002), leading to its modern phase. Spanish contribution, in fact, can be seen in the Alfonsine Tables; further, in the 17th century, the Council of the

Indies had a specific office for a cosmographer-professor whose task was to document eclipses, compile sea and land routes, and teach mathematics and science subjects (*Recopilación de leyes de los reinos de las Indias*, 1791, pp. 320–322). Despite these innovations, the Philippine case shows a slow process towards astronomical modernity. Aside from geographical distance, semi-independence of colonial administration, missionary priorities, and native resistance, the epistemic lag could also be blamed to the Spaniards themselves, who, knowing the conflict surrounding heliocentrism in Europe, would have perpetuated the delay of this scientific revolution. In 1616, books advocating for heliocentrism, such as Copernicus' *De revolutionibus* and In *Job commentaria* by Diego de Zúñiga of Salamanca, were banned by the Roman Inquisition (Finocchiaro, 1989, pp. 148–159). Citing Owen Gingerich, Resil B. Mojares (2013, p. 411) told that "only two Asian countries possessed the 1543 edition [of Copernicus' *De revolutionibus*], Japan and the Philippines, where a copy exists in the University of Santo Tomas. It is likely that Santo Tomas acquired the copy when its library was first established in 1605, but we have no information on its use." As far as available sources are concerned, it was only in the 19th century that pupils would read textbooks that discuss the Copernican solar system (e.g. de Rueda, 1845; Noval, 1896). Such development in colonial education can be coupled with the establishment of scientific institutions during Spain's last century in the islands. Within Jesuit auspices, the Observatorio del Ateneo Municipal was born in 1865, later reorganized as Observatorio Meteorológico de Manila in 1884 (see Alvarez, 2014; Anduaga, 2017). Through the observatory, the Jesuits ventured into as-

tronomical studies, culminating in the establishment of its astronomical branch during a star-spangled year, 1899.

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6 Appendix

Austronesian Astronomical Words

Collated here are the Austronesian astronomical words that constitute the following reconstructions: PAn *laŋjiC 'sky, heaven,' PAn *qajaw 'day, sun,' PMP *qalejaw 'day, sun,' PAn *bulaN 'moon,' PAn *bituqen 'star,' PMP *talaq$_1$ 'star,' PPh *bulalákaw$_2$ 'meteor, shooting star,' PPh *dúlis 'meteor, shooting star,' and PPh *dúlit 'meteor, shooting star.' Data are derived from Robert Blust, Stephen Trussel, Alexander D. Smith, and Robert Forkel's (2023) The Austronesian Comparative Dictionary (ACD), except for Table 4, Eastern Mindanao Axis *ʔandaw 'day,' which is proposed by R. David Zorc (Zorc & Almarines, 2021). As told earlier, words are provided as they are presented in the ACD. ACD has its own limitations, from the expected accuracy of orthography to the range of meanings. Future acquisition of additional data, through archival or field work, would help in nuancing the reconstructions and entries.

Table 1. Proto-Austronesian *laŋjiC 'sky'

Proto-form	Language	Reflex
Proto-Austronesian *laŋjiC 'sky' (PMP *laŋit: WMP, CMP, SHWNG; see also PWMP *laŋit 'palate; canopy')	Itbayaten	*xañit* 'heaven, sky'
	Ilokano	*láŋit* 'sky, heaven'
		i-láŋit 'to raise to the sky, lift up toward heaven'
		maŋ-láŋit 'to daydream'
	Ibanag	*láŋiʔ* 'sky'
	Isneg	*láŋit* 'heavens, sky'

Proto-form	Language	Reflex
	Isneg	*i-láŋit* 'spirits of the sky' (usually favorable to reapers; when they want to possess a shaman they use a bridge or ladder to come down)
	Itawis	*láŋit* 'sky'
	Gaddang	*láŋit* 'sky'
	Casiguran Dumagat	*laŋet* 'sky, heaven' (thought of as a huge, round, blue dome which is cupped over the earth)
	Agta (Dupaningan)	*láŋet* 'sky'
	Ifugaw	*laŋít* 'heaven, skyworld;' currently used by the Ifugaw, but borrowed from Ilokano or other languages
	Ifugaw (Batad)	*lāŋit* 'heaven'
	Ibaloy	*daŋit* 'heaven'
	Sambal (Botolan)	*láŋit* 'sky'
	Umiray Dumaget	*laŋot* 'sky'
	Tagalog	*láŋit* 'sky' *taga-láŋit* 'heavenly, of or in heaven'
	Bikol	*láŋit* 'sky, heavens' *ka-laŋít-an* 'the heavens' *laŋít-non* 'heavenly, celestial'
	Masbatenyo	*láŋit* 'sky, heaven, firmament, atmosphere'

Proto-form	Language	Reflex
	Aklanon	*eáŋit* 'sky, heaven' *ka-eaŋít-an* 'the heavens, Heaven'
	Waray-Waray	*láŋit* 'sky, space, heaven, eternity'
	Hiligaynon	*láŋit* 'heaven, sky, outer space'
	Cebuano	*láŋit* 'heaven, sky, joy, happiness'
	Mansaka	*laŋit* 'heaven, sky'
	Tausug	*laŋit* 'the sky'
	Hanunóo	*láŋit* 'sky, heavens'
	Palawan Batak	*laŋít* 'sky, heavens'
	Molbog	*laŋit* 'sky'
	Maranao	*laŋit* 'sky, heaven'
	Binukid	*laŋit* 'sky, heaven'
	Manobo (Tigwa)	*laŋit* 'sky'
	Tboli	*loŋit* 'sky, heaven'
	Mapun	*laŋit* 'the sky'
	Yakan	*laŋit* 'sky'

Source: Blust et al. (2023), ACD, https://acd.clld.org/cognatesets/30407#2/-8.8/173.5.

Table 2. Proto-Malayo-Polynesian *qalejaw 'day'

Proto-form	Language	Reflexes
Proto-Malayo-Polynesian *qalejaw 'day' (doublet: *qajaw) WMP, CMP; Zorc: PPh *qaljaw;	Itbayaten	*araw* 'sun'
	Ilokano	*aldáw* 'day'
	Isneg	*alxáw* 'day'
	Itawis	*álgaw* 'day'
	Casiguran Dumagat	*aldew* 'day, daytime'

Proto-form	Language	Reflexes
see also PMP *qalejaw-qalejaw 'daily, every day;' PWMP *maŋ-qalejaw; PWMP *paŋ-qalejaw-an; PPh *ka-qalejaw-an; PPh *qalejaw-an 'place in the sun')	Malaweg	*álgaw* 'day'
	Kalinga (Guinaang)	*algáw* 'day'
	Bontok	*ʔalgów* 'sun'
	Kankanaey	*ágew* 'sun, day, daytime, daylight, light, sweat, perspiration'
	Ifugaw	*algó* 'sun, day'
	Ifugaw (Batad)	*algaw* 'do something all day long; to sun something or someone'
	Kapampangan	*aldo* 'sun, day'
	Ayta Maganchi	*allo* 'day, sun'
	Remontado	*aydáw* 'day'
	Tagalog	*áraw* 'sun, day'
	Bikol	*alláw* 'day'
	Aklanon	*ádlaw* 'day, sun'
	Cebuano	*adláw* 'sun, day,' 'day' (as opposed to night)
	Hanunóo	*ʔáldaw* 'tomorrow'
	Palawan Batak	*ʔalláw* 'sun,' 'day' (opposite of night, rather than time measure)
	Klata	*oddow* 'day'
	Tboli	*kedaw* 'sun, day'

Source: Blust et al. (2023), ACD, https://acd.clld.org/cognatesets/30407#2/-8.8/173.5.

Table 3. Proto-Austronesian *qajaw 'day' and *q<um>ajaw to shine (of the sun)

Proto-form	Language	Reflexes
Proto-Austronesian *qajaw 'day' (doublet: *qalejaw)	Ifugaw	*um-algó* 'to shine (of the sun)'
*q<um>ajaw 'to shine (of the sun)' (Formosan, WMP; see also POc *qaco 'day,' doublet: *$qalo_1$; PAn *ma-qajaw 'sunny, hot')	Manobo (Western Bukidnon)	*andew* 'of the weather, to be sunny, day, sun'

Source: Blust et al. (2023), ACD, https://acd.clld.org/cognatesets/30407#2/-8.8/173.5.

Table 4. EMn-axis *ʔandaw 'day'

Proto-form	Language	Reflexes
Eastern Mindanao Axis *ʔandaw 'day' (nasal cluster introduced to PPh *qaljaw)	Manobo (Western Bukidnon)	*andew* 'of the weather, to be sunny, day, sun'
	Manobo (Ilianon)	*ʔandəw* 'day'
		ʔəndəw 'day'
	Central Subanen	*gindaw 'day'
	Western Subanen	*gondow 'day'
	Maranao	*daondao* 'day'

Source: see Zorc and Almarines (2021, p. 20).

Table 5. Proto-Austronesian *bulaN 'moon, month; menstruation'

Proto-form	Language	Reflexes
Proto-Austronesian *bulaN 'moon, month; menstruation' (PMP *bulan$_3$; POc *pulan$_3$; see also PMP *bulan-bulan$_2$ 'each month, every month, monthly; for months' PMP *bulan matay 'new moon, eclipse' (lit. 'dead moon'); PWMP *bulan-an 'monthly,' by the month; PWMP *bulan-en 'affected by the moon, mentally or emotionally unstable;' PWMP *bulan bulan-en 'affected by the moon, mentally or emotionally unstable;' PWMP *b<um>ulan 'walk in the moonlight;' PWMP *sakit bulan 'menses, menstruation;' PWMP *sa-ŋa-bulan 'one month (in duration);' PPh *ka-bulan-an 'month of expected childbirth')	Itbayaten	*voxan* 'moon, month'
	Ilokano	*búlan* 'moon, month, menses'
	Isneg	*búlan* 'moon, month'
	Itawis	*húlan* 'moon, month'
	Casiguran Dumagat	*bulán* 'moon, month' *me-mulan* 'to hunt by moonlight'
	Kalinga (Guinaang)	*bulán* 'moon'
	Bontok	*búlan* 'moon, month'
	Kankanaey	*búan* 'moon, moonlight, month'
	Ifugaw	*búlan* 'moon, lunar month, month'
	Ifugaw (Batad)	*būlan* 'moon'
	Pangasinan	*bolán* 'moon, month'
	Kapampangan	*bulan* 'moon, month'
	Tagalog	*buán* 'month, moon'
	Bikol	*búlan* 'moon, month'
	Bantuqanon	*bulan* 'moon'
	Aklanon	*búean* 'moon, month' *b-in-úean* 'monthly'
	Hiligaynon	*búlan* 'moon, month'
	Cebuano	*búlan* 'moon, month' *b-in-úlan* 'once a month, monthly' *b-in-ulan-án* 'household help'

Proto-form	Language	Reflexes
		pa-búlan 'hire oneself, someone out as a servant'
	Mansaka	*boran* 'moon, month'
	Hanunóo	*búlan* 'moon, month'
	Palawan Batak	*bulán* 'moon'
	Molbog	*bulan* 'moon'
	Binukid	*bulan* 'moon, month'
	Manobo (Western Bukidnon)	*bulan* 'month, moon, menstruate'
	Maranao	*olan* 'moon, month, pregnancy duration'
		olan-a? 'moonlight night'
		bolan 'month'
	Inati	*bolan* 'moon'
	Tiruray	*bulon* 'moon'
	Klata	*bula* 'moon'
	Tboli	*bulon* 'moon, month'

Source: Blust et al. (2023), ACD, https://acd.clld.org/cognatesets/30407#2/-8.8/173.5.

Table 6. Proto-Austronesian *bituqen 'star'

Proto-form	Language	Reflexes
Proto-Austronesian *bituqen 'star' (doublet: PMP *bituqin) (Formosan, WMP, CMP, SHWNG)	Itbayaten	*vitoen* 'star'
		vitwen 'star'
	Ivatan (Isamorong)	*vitohen* 'star'
	Ivatan	*vitohen* 'star'
	Ilokano	*bituén* 'star'
		bituén baybáy 'starfish'

Proto-form	Language	Reflexes
	Isneg	*bittuwán* 'star'
	Casiguran Dumagat	*bitón* 'star; for the stars to come out after a rain shower'
	Ifugaw	*bitúwon* 'star;' also 'planet' since the Ifugaw do not distinguish between the two. All the stars are believed to be the daughters of the moon deity.
	Ifugaw (Batad)	*bittūan* 'be starry, of the sky; a star'
	Pangasinan	*bitéwen, bitúen* 'star'
	Kapampangan	*batwín* 'star'
	Tagalog	*bitú?in* 'star'
	Bikol	*bitú?on* 'star in the sky'
	Bantuqanon	*bitu?on* 'star'
	Aklanon	*bitú?on* 'star (general term)'
	Hiligaynon	*bitú?un* 'star'
	Cebuano	*bitú?un* 'star; kind of tree of strand, the star-shaped fruits of which are used as fish poison: *Barringtonia asiatica*'
		bitú?un sa dagat 'starfish'
	Mansaka	*bitoon* 'be starry (of the sky)'

Proto-form	Language	Reflexes
	Manobo (Western Bukidnon)	*bitu?en* 'star'
	Binukid	*bituen* 'star'
	Maranao	*bito?on* 'star'
	Kalamian Tagbanwa	*bitukun* star

Source: see Blust et al. (2023), ACD, https://acd.clld.org/cognatesets/30407#2/-8.8/173.5.

Table 7. Proto-Malayo-Polynesian *talaq$_1$ 'the morning (evening) star: Venus'

Proto-form	Language	Reflexes
Proto-Malayo-Polynesian *talaq$_1$ 'the morning (evening) star: Venus' (doublet: *mantalaq)	Ifugaw	*talló* 'bright morning or evening star, the planet Venus'
	Tagalog	*tála?* 'bright star, planet'
	Mansaka	*bonta-tara?* 'morning star'

Source: see Blust et al. (2023), ACD, https://acd.clld.org/cognatesets/30407#2/-8.8/173.5.

Table 8. Proto-Philippine *bulalákaw$_2$ 'shooting star, meteor, spirit of the shooting star'

Proto-form	Language	Reflexes
Proto-Philippine *bulalákaw$_2$ 'shooting star, meteor, spirit of the shooting star'	Ilokano	*bullaláyaw* 'rainbow'
	Bontok	*bolláyaw* 'shooting star, meteorite.' It is believed to be a spirit.

Proto-form	Language	Reflexes
	Kankanaey	*bulalákaw* 'kind of animal (?), supposed to be an old eel, to fly and to be luminous.' Many stories are told about it.
	Ifugaw	*bulalákaw* 'whiteness of a wealthy young man;' used in hudhúd literature; *bulákaw* 'whiteness of a wealthy young man;' used in hudhúd literature; *bulaláyu* 'meteor, shooting star'
	Ifugaw (Batad)	*bullāyaw* 'a fireball with a tail; comet' (tradition is that it eats and drinks the blood of a person at night who is not protected by a fire)
	Kapampangan	*bulalakaw* 'exclamation uttered when seeing a shooting star'
	Tagalog	*bulalákaw* 'shooting star, meteor, St. Elmo's fire'
	Bikol	*bulalákaw* 'meteor, shooting star'
	Aklanon	*bulalákaw* 'bird, believed to be carrier of evil spirits'

Proto-form	Language	Reflexes
	Cebuano	*bulákaw* 'harmful supernatural being that takes the form of a ball of fire with trailing sparks. If it brushes or gets close enough to smell the skin it makes a permanent white spot; ball of fire used as transportation for *úŋlu?* (witch);' *bulalákaw* 'shooting star'
	Hanunóo	*bulalákaw* 'any large meteorite, or falling star'
	Palawan Batak	*bulalakaw* 'nature spirit, deity; spirit of shooting star'
	Binukid	*bulalakaw* 'spirit deity believed to inhabit and guard rivers' (synonym *tala-wahig*)
	Manobo (Western Bukidnon)	*bulelakaw* 'spirit deity of streams and lakes'
	Maranao	*bolalakaw* 'craze, madness, insanity (caused by evil spirit); spirit, god of the fish'
	Kalamian Tagbanwa	*bulalakaw* 'shooting star'

Source: see Blust et al. (2023), ACD, https://acd.clld.org/cognatesets/30407#2/-8.8/173.5.

Table 9. Proto-Philippine *dúlis and *dúlit 'shooting star, meteor'

Proto-form	Language	Reflexes
Proto-Philippine *dúlis 'shooting star, meteor' (disjunct: *dúlit)	Aklanon	*dúlis* 'shooting star'
*dúlit 'shooting star, meteor' (disjunct: *dúlis)	Isneg	*dúlit* 'shooting star'
	Hanunóo	*dúlit* 'a very small meteorite, or falling star'

Source: see Blust et al. (2023), ACD, https://acd.clld.org/cognatesets/30407#2/-8.8/173.5.

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Street Naming and Odonymy in Quezon City

Miguel Lorenzo J. Tan

Abstract

This paper describes the odonymy in Quezon City (QC), Philippines. A list of 3,957 unique street names in QC is generated from the database of OpenStreetMap (OSM) and arranged into an index. From this list, the odonyms are categorized into four emerging main categories of street names: (a) Themed or Associative, (b) Eponymic or Commemorative, (c) Cultural, and (d) Descriptive. It is found that street names that were themed or had semantic associations with nearby streets were most in number at 1,691. Nearly a third (1,292) of streets in QC were eponymic or commemorated a significant person or event in the country's history. Six hundred and twenty-nine (629) streets were related to some aspect of Philippine culture, heritage, religion, and values system. Finally, there were 345 street names that described its location or a nearby landmark. These four, along with their respective

subcategories, also serve as a typology of odonyms, and thus reflect a tradition of street naming practice in QC. The overlaps in the typology and categories of odonyms are due to the polysemy of some street names and reflect the simultaneous deployment of various naming motivations and strategies by the state and private stakeholders, including political, historical, cultural, religious, ecological, and ideological considerations.

Keywords: Toponymy, odonymy, street names, Quezon City, OpenStreetMap, urban studies

1 Designated Paths, Roads not Taken, and Corners Turned

To the inhabitants of an area, its frequent visitors, passengers, plyers, and all other wayward wayfarers, street signs and street names are simultaneously ubiquitous and crucial. In the most practical sense, street names allow for efficient and successful landmarking and navigation. But behind each and every official name for a highway, street, avenue, road, drive, lane, bridge, alley, exit, boulevard, rotunda, and any other path is a deliberate choice and an enacted policy, reflecting perhaps the various cultural-ecological values and beliefs of its area and era, or maybe an appreciable historical figure or event, and even latent political agenda and ideology. The study of such geographical names and naming practices is called *toponymy* or *toponomastics*, and this paper is an exercise at *odonymy*, the sub-branch dealing with the names given to streets and street-like paths.

In particular, this paper aims to describe and discuss the odonymy in Quezon City (QC), the largest city in terms of land area and population size in the Philippines' National Capital Region (NCR). A list of all official street names ("street" is henceforth meant to be inclusive of residential and suburban area streets, as well as major and minor national and public roads and highways) in and through QC is generated from the database of the open-source website OpenStreetMap (OSM). The gathered list, which is essentially an index of streets in QC, is then categorized into any emergent themes or categories, creating a typology for street naming. I also aim to provide some insights into how this typology and convention for street naming in QC may reflect the cultural and political ethos of both its policy-makers and citizens.

As such, the following questions serve as a guide throughout the research:

(1) What languages are used for the official street names in QC? Do the street names have or undergo any sort of orthographic variations? If so, what are these variations?

(2) What are the emerging practices, themes, and conventions for street naming in QC? How can these inform the identification of a typology of street names in QC?

(3) Are there any naming motivations (e.g. political, historical, religious, cultural, ecological, ideological) behind the street naming practices that can be derived from the typology and data?

Only unique streets in OSM's data of QC as of March 30, 2023[1] are treated. So unofficial, informal, or other popular culture names for streets and areas are excluded. The list of street names will also be viewed from a synchronic perspective, so the etymologies, mythologies, historical developments, and name changes of particular streets are not discussed; newly added streets after the said extraction date are also not taken into account. Still, an exploration into the more widely used terms, names, and "shortcuts" that people use to refer to popular places and streets, as well as their developments over time, remains interesting and worthwhile for a separate study.

QC was chosen as the focus of this paper due to the following reasons: (a) having the largest land area in NCR also meant that it has the most number of streets in the metro, ensuring more than enough data; (b) for logistical convenience, feasibility, and familiarity with some of its areas; (c) it is a planned city, and with a long history of undergoing various geopolitical changes, from serving as the nation's capital from 1948-1976, to undergoing numerous social and private housing projects involving districts and gated subdivisions, slums and condominiums, to being one of the country's economic hubs now, its simultaneous urban and suburban characteristics hinted at a diverse odonymy (see Pante, 2019).

Because the area covered by the paper is the entirety of QC, it deals with a large amount of data and thousands of individual street name entries. Thus, the paper is more quantitative in nature, and the attempted odonymy here is more of a bird's eye, large-scale view, rather than a particularized and heavily localized approach. As the street name is

[1]This is the date I extracted my initial list. Since then, the linked Agham and BIR roads have been renamed to Senator Miriam-Defensor Avenue. This change is not reflected in the data.

extracted from a database, it is also removed from the physical space it labels, from the environmental context it belongs to, and from the linguistic landscape it is a sign of. The street name is taken as unrelated from the physical characteristics of the street it names, as well as its location amidst the other streets. Overall, the paper treats street names as indexed on a list, not as distributed across space nor time, nor as part of the city-scape of texts.

The field of toponomastics and odonymy is vast, and I constrained myself to these limitations in the interest of feasibility. Regardless, an odonymic study of this sort is useful at the very least because it provides a workable list and index of street names in QC as of March 2023. Furthermore, the study can serve as a baseline for more focused, localized, and in-depth toponymic studies in the Philippines in the future. It can serve as a point of reference, or a standard for comparison, and in this regard, it fills a gap in the literature.

I now move to a short review of extant literature on odonymy, and then to an explanation of my method and data gathering procedures. Then, I provide an overview of the odonymy of QC and an analysis of my data and typology with some insights and conclusions. Finally, a link to the list of streets arranged by category is appended to the end of the paper.

2 Mapping the Literature on Odonymy

In this section, I give an overview of existing literature on odonymy; from its place within toponymy to the methodological bases within the field.

2.1 Odonymy as an Urban Subfield of Toponomastics

In any toponomastic undertaking, the space to be dealt with must first be defined and bound. In the most basic sense today, a street is a public thoroughfare where people and vehicles can pass to get to places. Streets are usually flanked by houses and infrastructure, and commonly lead to other streets. A couple of these streets form a block, and a collection of blocks creates a city. Hence, streets are commonly associated with urban sprawl, although any recognized and traversable thoroughfare anywhere already counts as a street. In fact, streets themselves are subjects in the field of urban studies and anthropology. Lynch (1960, pp. 50–53), for example, classifies a street as a *path*, one of five elements of the "city image" along with edges, districts, nodes, and landmarks. To Lynch, paths are channels along which individuals can move and observe the city and other items in the environment. One of these items are street signs, the physical name and label of the street.

These urban thoroughfares, as well as uncemented and undeveloped paths in rural places, all qualify as streets, as well as places and spaces in their very essence, and are likewise given official names by their respective local government units, or 'unofficial' and 'informal' names by locals, visitors, and migrants. The names people use for streets and paths also expectedly change over time, as do names for other places, things, and even peoples, because those very people change as well. The names and the places that are named run parallel to each other as they undergo changes over time: as the physical characteristics and inhabitants of a place change, so do its names. All this is to say that we can situate odonymy within toponomastics as one of the latter's more urban and

modern reimaginings and reinterpretations of place and space naming. Hence, streets as we understand them today can be treated as place and space touched by modernity's urbanizing and bureaucratic forces (Cumbe, 2016; de Certeau, 1980/1984; Low, 1996).

Neethling's (2016, pp. 144–145) concise summary of Toussaint's (2007) definition captures the scope of odonymy efficiently: "[odonymy] concerns itself with the names and naming of public streets, roads, and highways; how and why such names are selected; the approval, cataloguing, and standardizing of these names; and making information about these names available." We can also read street names, or *odonyms*, from the physical street signs on which they are inscribed. Neethling (2016, p. 144) provides a standard structure for street names everywhere, consisting of two main parts:

[Specific Name] + [Generic Type]

The specific name is the actual official name of the street that differentiates it from all others, like "Katipunan" or "E. Jacinto." The generic type, meanwhile, is the type of path the street is, like "Avenue" or "Boulevard." Differentiating among the various generic types will prove to be essential to this paper later on, as these are key to furnishing a unique list of street names in any area. However, the various physical and definitive differences among these generic types will not be discussed here any further.

The naming of streets and the placement of physical signposts serve various functions. Most apparent of these is that they organize place and space, and by extension they are crucial in the (re)organization of daily life and its activities and events. These are also referential, as street names are also used as points of reference in communication and

spatial organization, and navigational, as they allow movers to traverse the city to get to their destinations. In this way, street names and their signs are markers of locations of activities, transactions, and movements. Street names also have an administrative function as they divide and bound the city to distinct areas or districts governed by concerned local government units. And finally, street names have latent functions that go beyond the practical. Street names and signs are also treated as having semiotic functions due to being part of the linguistic landscape.

2.2 Odonyms as Signs in Place, Space, and Time

My review of extant literature reveals that odonomastic papers can be situated across a sort of methodological and theoretical spectrum. On one end are papers that treat street names as part and parcel of the physical street sign, as componential to the linguistic landscape of which it is part, and as inseparable from the rural or urban environment within which it exists (see Amos, 2015 and Banda & Jimaima, 2015). These studies view the street name and *sign* as a sign, and treat it from a structural, semiotic perspective. Street names are treated as part of discourse, as discursive units themselves, and as such carry within its name politics and ideology, almost akin to Barthes' mythological signification. Studies like Ferguson (1988) and Moll (2011) treat them as part of the 'symbolic infrastructure' of an area, for example, and thus as symbolically and politically-charged. Studies like these also constitute the subfield of critical toponomastics, which approach the place and the place name as sites of discourse, laying out the colonial history and aspirational futures of said place across space.

Apart from the physical structure of the street sign, the odonym itself is also essential to its characteristic as a political sign. Naming and labeling, after all, can be seen as an exercise of power done by the namer on what it is naming. While in its most basic and practical sense, naming can be a mere cognitive discrimination among concepts and meanings, an imprint and trace of the name-giver and their motivations are nevertheless left on the identity of the named entity (Brink, 2016; Mabanglo, 2009). Casagranda (2013, p. 292) even goes on to call it a 'form of norming,' priming one's expectations and ideations; as such, naming is a way of re/defining. And in the case of place naming, the concept applies to acts of boundary-setting, territory-marking, identity-forming, and nation-building. Of course, these also apply to intentionally named streets, either by public policy or by the private choices of the street's stakeholders. Motivations like commemoration and marketing thus become part of the decision-making process of naming streets (Azaryahu, 1996, pp. 319–321). Furthermore, Augustins (2004, p. 289) describes the act of street naming as a political act of 'dedication' in accordance with an intellectual or moral tradition as a means to stratify and differentiate social and spatial reality.

On top of that, street names can also be renamed; it can even be argued that any act of naming in toponymy is always an act of renaming. As the odonym is considered to be relatively more pliable and subject to changes, should logistical and financial considerations allow, street names are a relatively more routinely changed element of the city's linguistic landscape. Azaryahu (1996, p. 317) calls street renaming a simultaneous commemoration and de-commemoration, a 'ritual of revolution.' Accordingly, street renaming is often a signal of shifts in

power, particularly among those with authority over urban planning decisions, may it be: political upheaval, a change in bureaucratic regime, the establishment of a new political order, the promotion of the values and ethos of new era, among others (Azaryahu, 1996; Casagranda, 2013; Light et al., 2002). As the new name receives elevated recognition and begins to enter public usage and memory, the replaced name meanwhile is lowered down into the history of the mundane, the realm of the forgotten. This exchange is why the subfield of historical toponomastics exists: political motivations and influences in place naming can be easily left behind by the name, especially ones with colonial origins (see Yeoh, 1992).

The frequent targeting of the odonym at times of political change only points to its ideological latency as an urban feature. Azaryahu (1996) tells us that however ubiquitous street names may be, they nonetheless end up serving as representations of legitimate history, one created by policy-makers and urban planners who "introduce an authorized version of history into ordinary settings of everyday life" (p. 312). To illustrate, as we walk through the city and navigate its streets, we can 'read through its history' as laid out in a flattened grid of streets, with the past and even deeper past intertwined with one another into a single present time, and all their complexities and contradictions settled in a sort of anachronistic narrative; think of "Katipunan Avenue" intersecting with "[Ferdinand] Marcos Highway." In this vein, the ubiquity and mundanity of street names make them powerful urban propaganda markers, and iconographic symbols that silently and ubiquitously re/configure cultural space, public consciousness, and memory.

2.3 Odonyms as an Index of City-texts

On the other end of the spectrum are odonomastic studies that remove the street name from its physical environment and instead read it from a purposefully arranged list or index. By doing so, these studies can treat each individual odonym as a quantifiable and scalable data point. These studies do not reject the significant nature of the street name (i.e. as an ideological sign), and in fact these can be seen as the next progression to such semantic-semiotic treatment of street names. And because these studies methodologically deal with larger numbers of street names, their treatment of odonyms as quantified geographic data can be used correlatively and comparatively. This allows for observations on street name types to lead to wider conjectures about the motivations behind their naming and their possible consequences.

For example, Oto-Peralías (2017, p. 1), following Azaryahu (1996), categorizes street names as part of a wider collection of "city-texts" along with the other linguistic signs that make up an urban area's linguistic landscape. However, their treatment of such city-text is that it can be quantified, and in the social sciences, they argue that it can be a useful metric that can indicate religio-cultural values, historical appreciations, and infer economic status. For example, they were able to connect the predominance of commemorative male street names over female names with persisting gender inequality and male dominance in Spanish society. They were also able to point the presence and prevalence of "nationalist" street names to certain implications related to Spanish national identity-formation and nationalism. Most interestingly perhaps, they were able to correlate street names to matters of memory, historical distortion, and electoral politics. In particular, they found a significant

correlation between the presence in some areas of what they described as 'Francoist streets' (i.e. streets named after or commemorating former Spain dictator Franco-related things) and the vote share of right-wing parties in those areas at elections. Oto-Peralias' heavily quantitative study reveals that street names are not-so-ubiquitous after all and can be used as sociocultural indicators.

In the making of this study, I also made use of what I consider to be 'model papers' in odonomastics as inspiration and methodological basis. Azaryahu (1996) provides the theoretical foundation of street names and their semiotic and political operation. Casagranda (2013) then offers a useful theoretical layer that integrates perspectives from critical toponomastics, linguistic landscape approaches, and postcolonial studies as applied to odonyms. Next, Oto-Peralías (2017) exemplifies how street name data can be treated statistically to become useful socio-cultural indicators. And lastly, Oto-Peralías (2017), Perono Cacciafoco and Tuang (2018), and Hsiyan (2020) all provide examples of odonymies that classify the street names of selected places into a sort of typology according to their semantic content. In particular, this paper takes much inspiration from the typology and categories of Perono Cacciafoco and Tuang (2018, pp. 14–18), as they identified four (4) main categories of street names: (a) Commemorative (b) Borrowed (c) Thematic and (d) Descriptive. The main categories I ultimately found for QC are discussed in the later sections.

The extant literature I reviewed here all draw on mixed methods approaches that make use of qualitative judgments and quantitative assessments. We see here that research on odonymy typically gravitates towards the realms of onomastics, critical toponomastics, social geogra-

phy, and urban studies. Overall, odonomastics finds salience in the study of "social changes in commemoration politics as reflected in the city as text" (Fabiszak et al., 2021, p. 420), some taking on a more localized semiotic approach, while others a more wide-scale quantitative one. The application of such odonomastics on QC, as a city with a colonial history and religio-economic character tempered by administrative policies, is all the more worthwhile. In the next section, I discuss the data gathering software, method, and procedures I utilized to arrive at and explore the odonymy of QC.

3 Methods

In this section, I give a brief background on OSM as a geographic information system (GIS) and explain the method and procedures I followed in order to: (1) generate an initial list of street names in QC; (2) to trim the list to only contain unique street names; and (3) to categorize each unique entry of a street name to its respective category.

3.1 OpenStreetMap as a Collaborative Geographic Information System

OSM is an open-source collaborative geographic database emphasizing local knowledge. This means that anyone with internet access can add their own data into OSM, and similarly take whatever data they need from OSM's database. This data includes maps, shape files (the actual 2D mapping of city elements, including paths, buildings, open spaces), lists and locations of utilities and certain establishments (like bus stops, railways and bike lanes, public washrooms), text files that label these

shapes and locations, among many others. This opens up the site and its data to the same benefits and pitfalls that other open-source collaborative sites have. One of them is simply human error, in the form of typographical errors and irregularity with orthographic choices. The possibility of errors like this makes a couple things a bit more difficult: it may make some search queries inaccurate and data sets incomplete. Regardless, OSM contains a lot of useful data, which can be extracted by researchers in various ways. Gammeltoft (2016, pp. 508–51) even discusses the exciting potential uses of GIS and geospatial databases in onomastic and geographic research. However, I am yet to encounter similar odonomastic studies that make use of OSM as the primary resource and source of text data. In this regard, my undertaking may be considered unorthodox in its methods, or at least experimental in its approach.

3.2 Routes and Procedures

Text data like street names can be extracted from OSM's database with the use of overpass turbo, a third-party software that data mines OSM's interface using codes. The code needed to extract street names was already available in Overpass API's search query guide (see Section 7.1). This code extracts an alphabetical list of all text data used as labels for pathways in a geographic area a user specifies through a text prompt.

Using this code, I had managed to tabulate the data from NCR's 16 cities-municipalities as well as Cainta (the municipality in Rizal where I live) in a Google Sheets (see Section 7.2). The median number of streets for each city in NCR hovers around the 1,500 range, with QC being

the highest with 5,136 and Navotas being the lowest with only around 200 streets.

The extracted data sets seemed to be plausible and accurate, with the exception of Manila and San Juan which faced the problem of sharing their names with other places around the globe and making it hard for the code to concentrate on streets from therein alone (i.e. it extracted streets from other places in the world called Manila); the text prompt could not account for this. At this point, there were a few more issues with the data sets due to how the code is designed that still need to be cleaned up, which I have listed here:

(1) Paths (streets, sidewalks, trails, and other channels in which people travel) are all tagged as "highway" in OSM; these include major and minor roads, slip roads, and non-car roads like named footpaths and staircases, so these are also included in the data set

(2) Foreign streets - some streets from abroad might still make its way to the data set because of the same area name existing in some other country

(3) Duplicate streets - the code already removes exact string duplicates, which is useful because OSM sometimes has two labels for long major streets or streets intersected and cut by another wide street. What does not get filtered out are other types of streets with the same name (e.g. Katipunan and Katipunan extension), and "synonyms" that actually refer to the same thoroughfare (e.g. Anonas avenue and Anonas road)

(4) There are also instances of streets (usually major ones) crossing or going across boundaries of two or more cities in NCR (e.g. EDSA).

> These streets are included in the data set of each city they pass through (e.g. some streets of Cavite are included in Muntinlupa's data set simply because they also pass through Muntinlupa).

I then singled out the list of QC streets on a separate Sheet in its own column, henceforth called "unique list" (Section 7.2). Next, I had to deal with the issues I listed above for the list of QC streets. First, I had to separate duplicate (i.e. same name, different type) streets from the unique list into separate columns based on their type (e.g. "Katipunan" remained in the unique list, yet "Katipunan Avenue," "Katipunan Extension," etc. were separated into their respective columns of "Avenue," "Extension," etc.). I decided to keep the street name without a type, if ever it had duplicates, in the unique list because I deemed that the specific street name was what is important for the analysis and typology, rather than its generic type. The following types were separated from the unique list into their own respective columns if they had a type-less duplicate in the unique list: (a) street, (b) avenue, (c) road, (d) extension, (e) lane, (f) interior, (g) bridge, (h) alley/aisle, (i) exit/gate, (j) tunnel/underpass, (k) loop/circle/rotunda/bend, (l) service/access/bypass road, and (m) boulevard.

Second, by giving each street name a quick background check (Google search and OSM search) to confirm that they were indeed a street in QC and not some other place, I manually removed foreign streets from the unique list.

Third, since non-street places were also included in the list, I had to separate these from the unique list into their respective columns as well. These included: (a) footbridges/footpaths/bike lanes, (b) compounds, and (c) actual places. Actual places included subdivisions, gated villages,

areas, courts, colleges, malls, offices, business establishments, plazas, parks, and other public places. Curiously, these places were extracted by the code from OSM, and I surmise that this is because they are tagged as "paths" in the database simply because they did qualify as paths (channels of movement), just not as the streets I am looking for.

After cleaning up the unique list, it ended up having 3,957 unique entries of street names. It must be noted here that in no way is this a complete list of unique street names in QC, as the code may still have missed some streets or OSM itself could have had missing streets. The next step was to then categorize these remaining entries in the unique list into their respective category in the typology. I owe Perono Cacciafoco and Tuang (2018) for the four (4) main categories of odonyms they identified in my own identification of four emerging main categories, which are: (a) Thematic/Associative, (b) Eponymic/Commemorative, (c) Cultural, and (d) Descriptive. I then made a separate Sheet for each of the four major categories (each will be discussed further in Section 4), and within each Sheet were columns for each subcategory also differentiated by the language of the street name (see Section 7.2). Sorting each individual entry of the 3,957 one-by-one was made tedious by the fact that a brief background check was also done for each odonym before they were categorized. This was to know and ensure the meaning and category of each street name. To illustrate, some names were not apparently obvious that they were names of local mountains, or of adjacent once-standing buildings now-gone, or that some were actually English names for flowers, etc. Ensuring the meaning of each was crucial for a reliable tally and typology.

I tried to 'specialize' and narrow down my categorization and typology of the odonyms as much as possible and as long as it remained practical and purposeful. After each entry was categorized into their respective sub/categories, quantity and quality checks were done to ensure accuracy before the ensuing analysis.

4 Quezon City Odonymy and Data Analysis

In this section, I discuss the total tallies of streets, the languages used for odonyms as well as some orthographic observations, and the typology of street names in QC after following the procedures discussed in the previous section.

4.1 Tally of Total Streets, Duplicate Streets, Non-streets, Removed Entries, and Unique streets

According to the particular configuration of code I entered on Overpass Turbo, there are 5,136 total named streets in OSM's QC. However, this number was whittled down to 3,957 uniquely named streets after the separation of duplicates and 'non-streets' and the removal of some entries. The breakdown of the total generated list is as follows:

Table 1. Tally of Total Streets, Duplicate Streets and Non-streets, Removed Entries, and Unique Streets

Total number of 'streets' in QC generated by Overpass code		5,136
Total number of 'streets' in QC generated by Overpass code		1,179
Duplicate by generic type	Street	470
	Extension	155
	Drive	80
	Avenue	63
	Road	54
	Lane	35
	Loop / Circle / Rotunda / Bend	24
	Alley / Aisle	23
	Service / Access / Bypass / Slip Road / Aisle	20
	Interior	19
	Exit / Gate	6
	Tunnel / Underpass	5
	Bridge	4
	Boulevard	2
Non-streets	Actual Place / Mall	66
	Compound	48
	Footbridge / Footpath / Bike Lane	39
Removed	Removed typos, non-streets, and non-places	66
Total number of uniquely named streets in QC after cleaning and filtering		3,957

"Duplicates" include streets with the same SPECIFIC NAME but different GENERIC TYPE; only one entry was retained in the unique list for each set of duplicates. These were excluded in the categorizing and analysis because the focus here was uniqueness and representation; this is also to

avoid the issue with overpass turbo extracting multiple entries for the same street in real life, which would have affected the data. Still, the question of which street names are the most common or most unique can be taken up in a separate inquiry. Meanwhile, "non-streets" like footbridges, compounds, actual places, and mall driveways were also separated from the main list.

4.2 Orthographic Variations and Language of Odonyms

The following orthographic variations were causes for entries to be "removed," as long as they are proven to be incorrectly spelled by cross-checking in GoogleMaps and that their correctly spelled form was also in the list (extra, missing, or incorrect characters are enclosed in brackets [ ]):

(a) Typographical errors and spelling mistakes:

- Alma[g]i[c]a, Cathe[i]rine, Don Vi[n]cente, Dunh[u]ill, E[x]ekiel, Grec[]io, [L]guerra Drive, Luis[]to, Mel[e]guas, Polar[]s, Sagit[]arius, Saint Philip[p], Sap[]hire, Stan[d]ford, Sul[a]tan Kudarat, Tangui[t]e, Soccor[]o, Wal[l]nut, Zuzuar[]egui;

(b) The use of "n" over the letter "ñ:" Osme[n]a, Do[n]a Juliana, Santo Ni[n]o

(c) Missing period (.) and spacing: A[] Bonifacio, E.[]G. Fernandez Street, J.[]P. Rizal

(d) Unnecessary use of dash (-): Biak[-]na[-]Bato, Mapagkawang[-]gawa

(e) Incorrect capitalization: Gumamela [s]treet; Ilang-[i]lang; Ipil-[i]pil

(f) Unnecessary spacing: Dap[ ]dap (no space in between); Waling[ ]Waling (dash in between)

Also removed were places, segments, and junctures that are not specific or relevant enough:

(a) Brand chain stores: chery, dkny, Nobilitys

(b) Other non-streets: basement parking, basement parking exit, Pay Parking, Pedestrian Crossing, Pedestrian Overpass

(c) Street segments: EDSA-Quezon Avenue, NLEX Segment 8.2, Skyway Ramp

There were also some streets that had variations in spelling, but were kept in the unique list because it is the name of the actual street:

(a) "Bougainvilla Street," "Bougainvillea Street," and "Bouganvilla" are all distinct streets in different areas,

(b) So are "Poinsetia" and "Poinsettia,"

(c) And "Blue Bird" and "Love Bird" along with "Bluebird" and "Lovebird"

There were also some entries that were entirely capitalized and kept in the list (e.g. GURAMI DRIVE, TILAPIA DRIVE). These belong to the same area and were probably contributed by the same user. Aside from

these, the standard orthography and structure of the odonyms follow the two-part structure, with only the first letters of each word capitalized. However, the orthographic form of the odonym in the generated list may not be the form in the actual street sign, which typically uses a typeface that capitalizes every letter for visibility and clarity.

Other notable spelling choices involved the alternation between some letters in the Filipino alphabet. For example, between "s" and "z" (i.e. Lansones Street and Lanzones). There is also one between "c" and "k," with Calachuchi, Campupot, and Culasisi streets, which are expected to be spelled with a "K" in standard orthography; furthermore there are Caimito and Kaimito streets, whose vowel diphthongs are expected to be spelled with "ay" (i.e. Kaymito). Notably, Macban Street, which is named after MAKBAN Geothermal Powerplant in Laguna and Batangas, which is itself named after Makiling–Banahaw, has had its "K" changed to a "C" in its spelling as an odonym.

Odonyms were also classified by language whenever possible, yet not all names were classifiable as some were eponyms, vague, or possibly coined. Researching the etymologies of each name was simply infeasible for this paper. Nevertheless, below is a tally of the street names according to language.

Table 2. Tally of Street Names according to Language

Language	Number
Nominal or Eponymic	1,572
English and Other Foreign	1,493
Filipino and Other Philippine	458
Spanish	119
Arabic	2
Malay	1
Uncategorized	312
Total	**3,957**

Since it would be difficult to trace the etymologies of names, the tally for Nominal and Eponymic includes odonyms from local persons and local places. Uncategorized includes mostly alphanumeric streets (which are almost wholly in English) and streets with obscure etymologies that do not fall under nominal and eponymic. In any case, it is apparent that English, which is taken here to include other non-native languages, dominates the language of odonyms by a wide margin. This includes the names of foreign persons and places, brands, phrases, words related to the fields of STEM and bureaucracy, and other foreign imports. Streets in Filipino and other native languages represent roughly only an eighth of the data, but this number would be higher if one were to count local nominal streets in this category. Spanish, Arabic, and Malay are tallied due to some street names that are related to culture and religion.

4.3 Emerging Typology and Categorization

In what can be considered a typology, four main categories emerge from the unique list of 3,957 entries. Ultimately, street names in QC can be said to belong to four (4) main categories: (a) Themed or Associative, (b) Eponymic or Commemorative, (c) Cultural, and (d) Descriptive. Each of these categories have their own subcategories. These categories can also be seen as 'naming practices' used by those with authority over the urban spaces of streets, be it by the local government units or private stakeholders (Perono Cacciafoco & Tuang, 2018). In the end, however, the typology and categorization are not so clean and clear-cut, as the categories often overlap and thus can be homogeneous; this is a reflection of how various naming practices are often simultaneously employed in naming streets. The tally and breakdown is as follows:

Table 3. Typology of Street Names and Tally of Each Category and Subcategory

Total uniquely named streets in QC	**3,957**
Themed / Associative	**1,691**
Borrowed	832
Local Places	261
Other Specific Themes	247
STEM (Astronomy, Chemistry, Geology, Greek Letters)	100
Occupational / Governance-Bureaucracy	93
Foreign Mythology	24
Temporal (Months, Seasons)	16
Colors	14
Flora	244
Fauna	107

Eponymic / Commemorative	**1,292**
Singular Name	733
Particular Person / Specific Name	525
Group	27
Events	4
Dates	3
Cultural	**629**
Dates	265
Values	180
Culture	158
Possibly Autochthonous	26
Descriptive	**345**
Alphanumeric	241
Referential	57
Nearby Place or Infrastructure	44
Geographical	3

The next portion of the paper goes through each category and subcategory, arranged by decreasing number of streets, and explains the reasoning and justifications behind each. I explain what kinds of odonyms are subsumed under each (sub)category. The tally is enclosed in brackets [ ] beside the subheadings.

4.3.1 Themed / Associative [1,691]

These are street names named in accordance with a particular chosen theme, which are also neither commemorative or culturally salient enough. This category contains the most subcategories.

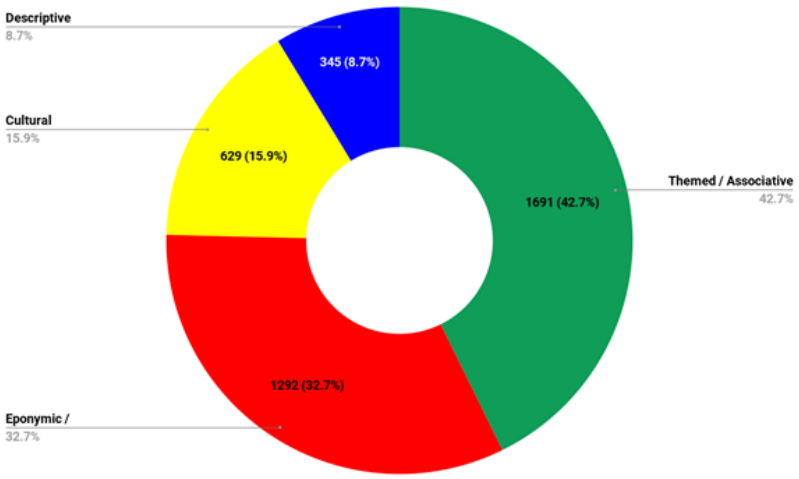

Figure 1. Donut chart of the Percentages and Proportions of Each of the 4 Main Categories

Table 4. Tally of Each Subcategory Under Themed/Associative

Themed / Associative	Number
Borrowed	832
Local Place	261
Specific Theme	247
Flora	244
Fauna	107
Total	**1,691**

(a) Borrowed [832]. A large chunk of thematic and associative odonyms are loan words (usually from English) and foreign names transported to typically residential villages or gated subdivisions with themed street names. One can observe that many streets placed in this category can be

subcategorized further into many groups, which in all likelihood would end up grouping the respective streets of various villages and subdivisions together. The fact that all of these streets are grouped into this one large category is simply due to the fact that whatever subcategory may be formed within, it would consist completely of English words and loan words; this is unlike all other sub/categories in the typology, which have some examples of Filipino or Philippine words (even if they are originally from Spanish). In other words, unlike the other sub/categories, the defining feature of these streets is that they are borrowed, and through this fact their primary purpose is to also borrow prestige from the places they take the names of and utilize this to attract homeowners.

To illustrate, many entries here are compound words formed by a color or adjective (e.g. Green, Bright), followed by a word for landforms or waterforms (despite having none in the proximate area; e.g. hill, river), then closed with an optional Generic Type (e.g. drive, lane). These streets with seemingly vague or coined origins occur in residential areas, and reflect what Brink (2016, p. 3) calls geographically transferred "vogue names." These typically spread as a sort of fashion and are meant to convey the named areas' prestige rather than any truthful semantic message or actual geographic characteristic. Similarly, plenty of the streets in this category are named after foreign brands, like cigarettes and automobiles, and foreign cities, states, and provinces (e.g. Brooklyn Street, L. Vuitton, Marlboro).

Perhaps it is unsurprising that themed odonyms populate private, middle class, residential streets. If the goal of private stakeholders and homeowners was to exhibit prestige and maintain a sense of unity or community among solitary gated housing, themed and associative toponyms

certainly help in projecting an idea of "one-ness" and interrelationship among its unrelated residents.

(b) Local Place [261]. This subcategory includes streets named after contemporary local places. Language was not an important distinction here, as these are eponyms and name transfer is common (Brink, 2016). Many entries are named after provinces, dams, bodies of water, mountains and volcanoes, islands, and popular tourist spots in the Philippines (e.g. Batanes Street, La Mesa Drive, Makiling). This category is separated from Possibly Autochthonous because not all contemporary local place names are indigenous, some bear obvious colonial influence. The biggest ambiguity encountered here was that many contemporary local places are also eponymic to begin with (typically originating from Spanish occupation), some even named after saints or historical personalities, so a bit of overlap was unavoidable.

The fact that this many streets in QC are named after faraway local places lend it a sort of microcosmic personality, yet this number is still matched, if not dwarfed, by foreign places in the previous category. So aside from the indiscriminate mixing of history by commemorative odonyms discussed by Azaryahu (1996), the fact that many streets are named after other places, both local and foreign, QC's odonymy also flattens and randomizes geography.

(c) Specific Themes [247]. Finally, subsumed under this category are other themed streets whose quantities are non-negligible and warrant a separate subcategory. These are:

- Names related to the STEM field, in particular, astronomy (celestial bodies), chemistry (elements and matter), geology (rocks and gemstones), and greek letters [100] (e.g. Planeta, Omega Street)
- Occupational names related to jobs, work, government office, and bureaucratic processes [93] (e.g. Kagawad Road, Congressional Avenue)
- Foreign, though mostly Greek, mythology [24] (e.g. Olympus Drive)
- Temporal names having to do with months and seasons [16] (e.g. Autumn Drive)
- Colors [14] (e.g. Pink Street, Rojo)

(d) Flora [244]. The subcategory of streets named after plants and vegetation consists of names for trees and wood (e.g. Kamuning, Elm), flowers (e.g. Gumamela, Lotus), fruits (e.g. Anonas, Mulberry), vegetables and plants (e.g. Anahaw, Cactus), and other harvests from plants (e.g. Dinorado). Filipino plants [133] outnumber those in English [111]. There are some popular folk etymologies where some streets and areas are said to have been named after signature vegetation in its vicinity. This is certainly possible, and some odonyms here would then be autochthonous, but confirming these etymologies is unfortunately outside the scope of the paper.

(e) Fauna [107]. Plenty of streets in QC are named after animals. There are [41] in Filipino and [66] in English. Fishes and birds seem to be the most represented animals in both languages (e.g. Aguila, Owl Street). Again, the etymology argument for salience from the *flora* subcategory applies here too, but it may be harder to confirm for migrating fauna.

Another challenge is due to the fact that green spaces are now sparse as areas in QC continue to be paved and urbanized; the trees and birds that were once there, may no longer be.

4.3.2 Eponymic / Commemorative [1,292]

The second main category is composed of Eponymic (named after a person) and/or Commemorative names. Making up nearly a third (1,292) of QC's street names, included here are odonyms after personalities, famous forenames and surnames, groups, and historical events, both local and foreign.

Table 5. Tally of Each Subcategory under Eponymic/Commemorative

Eponymic / Commemorative	Number
Singular Name	733
Particular Person / Specific Name	525
Group	27
Events	4
Dates	3
Total	**1,292**

(a) Singular Forename or Surname [733]. Street names are placed in this category if they contain only one name, either a forename or a surname, even if the referent person is usually known by a singular name (like a mononym); we cannot be certain from the list alone. Included here then are surnames of notably famous persons, locally and abroad. Also here are singular names preceded by the title "Don" and "Doña," as these titles are not enough to identify the particular person being

referred to, unlike the other titles in the next subcategory. For example: Miguel, Navarro.

(b) Particular Titled Person / Specific Full Name [525]. The street name is considered a full name if it takes one of these three forms:

1. [Forename] + [Surname]
   - e.g. Betty Go-Belmonte Street
2. [Initial/s] + [Surname]
   - e.g. C. P. Garcia Avenue
3. [Position/Title] + [Forename or Surname]
   - Some examples of common titles in eponymic street names are: General, King, Queen, Scout, etc.
   - e.g. Speaker Perez Street

Streets named after personalities like the individual priests of GomBurZa are included in this category because although they may be considered under the "Religious" subcategory, they are commemorated more due to their historical significance. Another exemption included here are pen names, i.e. Plaridel and Dimasalang, as while these are single names, they clearly refer to specific persons in the country's history. Meanwhile, names of foreign saints are not included here as their commemoration is not because of national historical significance.

(c) Groups [27]. Included here are popular nicknames for three or more people (i.e. Gomburza), names for indigenous peoples (e.g. Bagobo), and war factions and squads (e.g. Magdalo).

(d) Events [4]. Three of the four commemorated have to do with the 1898 Philippine Revolution (e.g. Pugad Lawin), and one is a battle that happened during World War 2 (Bessang Pass).

(e) Dates [3]. There are only four streets in QC named after dates, and they are all in Spanish. 19 de Agosto is the birthday of QC's namesake, Cuatro de Julio is celebrated as Republic Day, or Philippine-American Friendship Day, and Primero de Mayo is Labor Day.

A source of ambiguity in categorizing names is due to some also belonging to the Thematic/Associative category, that is, some areas in QC have streets named after themes like 'popular foreign artists' or 'popular scientists.' Ultimately, I considered the commemorative factor of eponymic streets over their being part of an overall theme. Eponymic streets normalize the popularity and historical significance of their namesake, and they celebrate the contributions and relevance of persons without elucidating on such (Azaryahu, 1996). Moreover, the inclusion of a title in the street name highlights that particular role of the person in life and history, perhaps even invisibilizing their other roles and characteristics; the absence of titles for some names makes their significance even easier to forget. Similarly, initializing some parts of a figure's name emphasizes the name which is spelled-out, and helps how that person is remembered in public consciousness. Whether or not these commemorative intentions and effects actually impact or last in the psyche of inhabitants and road users can be the subject of another study. Finally, this paper also misses out on the opportunity to distinguish each name or personality by gender due to feasibility constraints. Doing so may reveal whether or not one gender dominates the cityscape text

over the others, or the presence of gender inequality in commemorative practices, as in Oto-Peralías (2017).

4.3.3 Cultural [629]

The third category is composed of what I deemed as street names that are "cultural" in nature. These include values-based or -laden names, religious allusions and figures, heritage and language-related names or those associated with the country's literary tradition, and possibly autochthonous names (i.e. indigenous names for the area).

Table 6. Tally of Each Subcategory under Cultural

Cultural	Number
Religious	265
Values	180
Culture (Language and Heritage)	158
Possibly Autochthonous	26
Total	**629**

(a) Religious [265]. Expectedly, streets named after religious items, allusions, and hagionyms (names of saints) favor the city's (and country's) majority Christian population. Included here are names of people, places, and events in the Bible, names of contemporary Filipino religious practices and fiestas, hagionyms and names of disciples, and names and titles of God and Jesus Christ (e.g. Simbang Gabi, Eden, Sacred Heart). There are religious street names in Filipino [17], English [146], Spanish [100], and only two [2] are Islamic. An ambiguity encountered in cat-

egorizing is when an hagionym is now also an eponymic place name elsewhere in the country (e.g. San Fernando).

(b) Values [180]. Included here are abstract ideas, ideal traits, or perhaps underlying aspirations of the street-namers for its inhabitants. This subcategory is differentiated into three languages: Filipino, English, and Spanish. There are only five [5] Spanish entries (all belonging to one subdivision), while the English count [58] is doubled by Filipino names [117], which mostly take the wordform affixed by *ma-* and *ka- -an*. These entries range from personal characteristics (e.g. Kagandahan, Friendly) to community-based values (e.g. Mapagkawanggawa, Goodwill Street) to ethos of the national scale (e.g. Kaunlaran, Freedom). Although unfortunately outside the scope of this paper, it is also important to ask whose values these exactly belong to, and how they may be arranged ranging from conservative values to more progressive ones in line with contemporary value systems (to illustrate, streets in Barangay Teachers' Village are said to be ideal traits a good teacher must possess). Religious values are placed in this subcategory as well.

(c) Culture [158]. This is a broad subcategory encompassing language-related, literature-based, and Philippine heritage-associated street names. Allusions to popular Philippine literature and art genres are here as well, including characters from folk epics and tales (e.g. Adarna, Salawikain). Some streets are named after Filipino parlor games, folk songs and dances, and festivals (e.g. Pahiyas, Patintero). Yet a big chunk [122] of this subcategory are Filipino words which do not seem to be thematically related or patterned, but are nevertheless aspects of Filipino culture (e.g. Liwayway Street, Noche Buena). There are seven [7] names that are in

Spanish which fit here better than in any other category, as they are also Spanish phrases and remnants of Spanish occupation (e.g. Cabezas and Union Civica Streets). One [1] street is named after the Arabic writing script, Diwani. The overlap of categories is also apparent, as some street names categorized here are also closely related to values and religious concepts.

(d) Possibly Autochthonous [26]. Included here are possible autochthonous toponyms reused as odonyms of the same area. I placed here street names whose meanings and etymologies are not so obvious and cannot be ascertained through only brief preliminary research. These names are under the Cultural category because, if ever they are indeed indigenous toponyms and terms, they would have enough historical rootedness to also be culturally salient; indigenous place naming is part of cultural heritage after all. For example: Balingasa Road, Payatas Road.

However, I must maintain that the reading of these street names is remote from the actual streets, so all evidence used to ascertain that odonyms belong in this category are culled from its name alone; there may be inaccuracies, but these are not due to the evidence. Mostly, this is the presence of the suffix *-an* for Filipino names, that signify a place where the suffixed stem occurs or is plenty (e.g. Manggahan 'place of mangoes,' Santolan 'place of santol [fruit]'). A few entries may be odonyms named after nearby waterforms (e.g. Pansol Avenue, Tabing Ilog Street). And some appear to be describing the land of the area (e.g. Damong Maliit 'small grass')

4.3.4 Descriptive [345]

The last main category comprises odonyms that describe or are described by something in their immediate surroundings, be it a geographic landmark, a nearby place or infrastructure, or other streets. These are also the least in number.

Table 7. Tally of Each Subcategory under Descriptive

Descriptive	Number
Alphanumeric	241
Referential	57
Nearby Place or Infrastructure (Language and Heritage)	44
Geographical	3
Total	**345**

(a) Alphanumeric [241]. Similar to the previous subcategory, alphanumeric streets are identified in space relative to the other streets in their vicinity. These are typically ordered in a predictable sequence or series. Every numbered and/or lettered street was placed here (e.g. K-1, Alley 1,…Alley 30).

(b) Referential [57]. These streets are referential because they are 'defined' or identified in space with relation to other streets in the area. These are directional streets with reference to others of the same name and type. Street names containing any of the words "north," "south," "east," "west," "lower," "upper," "central" or their Filipino equivalents are placed here. For example: Timog Avenue, Lower Bernardo.

(c) Nearby Place or Infrastructure [44]. These are streets named after a proximate prominent government office, private institution, building complex, barangay, district, village, or national highway. They typically take the form of: [ACRONYM OF INSTITUTION] + [GENERIC TYPE], e.g. GMA Network Drive, PUD Site (Planned Unit of Development).

(d) Geographical [3]. Perhaps the most 'descriptive,' these odonyms are named after the notable geographic characteristic of their area, or simply the shape of the road (e.g. Big/Small Horseshoe Drive, Elliptical Road). Perhaps the main reason why streets of this type are so few is that in a highly urban setting, naming streets after their shapes or physical characteristics would not be so practical. Urban development normalizes and standardizes streets and their looks, and only one-of-a-kind streets retain this type of odonym.

On the other hand, we can say that the first three subcategories here are more urban features, wherein the need to arrange and organize streets for administrative and navigational purposes becomes part and parcel of the city's existence.

Overall, there were various sources of ambiguity that were encountered in the process of categorizing. Most of these can be debased to the polysemous character of some names and odonyms. When it comes to eponymic odonyms, wherein street names are named after places that are also named after some other thing or person, it essentially becomes a chicken-or-the-egg problem: which name came first? The issue is then reverted back to a historical one. Furthermore, commemorative eponymic street names can also be 'cultural,' or they can belong to a 'theme' and be associated with other names, or they can 'describe' or pertain to something within the vicinity (like a statue or monument), and vice

versa. There arises a possibility that one single street name can be argued to belong to all of the four main categories of my typology; or even none of them. These ambiguities and challenges only emphasize the fact that the typology and categories can be homogeneous, semi-permeable, and overlapping just like the motivations behind naming practices. It must also be pointed out that the typology outlined here is the result of much mental strain inevitably infused with my own subjective value judgments.

5 Conclusions and Recommendations

This paper described and discussed the odonymy in the Philippines' Quezon City (QC). A list of 5,136 street names in and through QC was generated from the database of OpenStreetMap (OSM) and arranged into a list or index. From this number, duplicate entries, non-streets, and other erratic entries were first separated from the list to produce a list of 3,957 unique odonyms. Then from this unique list, remaining entries were categorized into four main categories of street names that emerged: (a) Themed or Associative, (b) Eponymic or Commemorative, (c) Cultural, and (d) Descriptive. It was found that street names that were themed or had semantic associations with one another were most in number at 1,691. Nearly a third (1,292) of streets in QC were eponymic or commemorated a significant person or event in the country's history. Six hundred twenty-nine (629) streets were related to some aspect of Philippine culture, heritage, religion and value system; and, street names that described its location or a nearby landmark were 345. These four, with their respective subcategories, also serve as a typology of odonyms,

and represent a tradition of street naming practice in QC. However, it must be noted that these types and categories have overlaps due to the interplay of polysemy with their usage as eponyms throughout history, reflecting as well the simultaneous deployment of various naming motivations and strategies.

Moreover, these odonyms were also classified according to their language. It was found that among the classifiable odonyms, English and borrowed words were most represented in the city-text at 1,492 unique streets. There were only 458 street names in Filipino, while a decent number were in Spanish at 119, and both Arabic (2) and Malay (1) were represented. Eponymic street names dominate the proportion of odonyms at 1,572. Furthermore, the odonyms generated from OSM had their fair share of orthographic variations in spelling, capitalization, spacing, punctuations, and initialisms.

From the typology and quantities of each category alone, we can say that odonyms may indeed evince some of the naming motivations behind them. The prevalence of eponymic odonyms reflects the politics of commemorative naming practices and conveys the state's official narrative and agents of history (Azaryahu, 1996, p. 324). The presence and widespread use of local toponyms and culturally related names at the very least show an appreciation for the country's culture and heritage, and may even be educational. The use of certain values and traits as odonyms appear to certify which ones are ideal for and expected from the model citizen and Filipino. And the dominance of Christian (in particular, Roman Catholic) odonyms matches the city's predominantly Christian population, perhaps even to the marginalization of other religions and denominations. The usage of animals and plants as odonyms

also indicate an ecological and environmental consideration in the naming practice, as some streets may be named after species that existed in the region at least at some point in time. The preponderance of what Brink (2016, p. 3) classifies as transferred vogue names, i.e. those that are foreign, coined, and typically borrowed from English, are meant to display prestige and associate a positive image to the area. Lastly, alphanumeric and referential odonyms are the most practical, only functioning to organize the city's space; I hypothesize, however, that these streets are prime candidates for potential renamings in the future, like they have been in the past.

Furthermore, the preponderance of odonyms and borrowed vogue names in English may reflect several emerging characteristics of QC as an urban city (Pante, 2019). First, the appearance of odonyms named after nearby media and government institutions, malls, and other consumerist hubs signifies the expansive commodification of its spaces that is taking place and the expanding role of the city as a center of socio-political activity in the National Capital Region (NCR). Second, the rise in number of the city's English-educated middle class coincided with, or indirectly caused, the outgrowth of suburban residential enclaves within the city. These zones project themselves as exclusive and prestigious spaces which utilize the upward social associations of English (through its toponyms and odonyms) in order to attract more potential homeowners and stakeholders. Lastly, Pante also notes QC's recent goal and strategy of developing and branding itself as a 'global city,' which entails marketing itself as a metropolis capable of competing in the 'neoliberal urbanism' happening in other 'global cities.' The wide usage of the global lingua franca of English in its street names, despite a predominantly Filipino-

speaking population (and contrary to QC City Council's own street and public infrastructure naming guidelines in Ordinance SP-2462, S-2015), reflects this attempt towards a more globalist orientation.

Overall, it is unsurprising that public roads and national highways are named after those which the state deems significant and relevant to the country's history and project of nation-building (National Historical Commission of the Philippines [NHCP], 2011), while private and residential street names reflect prestige and project a sense of unity, community, and organization to attract potential residents and capital. From the mere presence of odonyms and the semantic and semiotic content they carry, we can thus read a semblance of the cultural and political ethos of policy-makers, urban planners, and citizens.

5.1 New Directions

The paper and its findings on QC's odonymy serve to support existing literature on toponomastics and odonymy elsewhere. It can be situated in between odonomastic studies that deal with the semiotic significance of street names and those that treat the odonym as a useful statistical indicator of other sociocultural factors. Still, there is much to be explored and cultivated in this field. At the very least, this study can serve as a springboard for future work on toponomastics and odonymy in the Philippine setting. Future work can develop the literature in two directions. The first is widening the scope of such odonymy and typology-making to include other cities within and outside NCR. Other urban centers in the country and smaller still-urbanizing cities in provinces are both interesting fields. A larger mass of quantifiable data can also be more reliable and useful as statistical correlates or indicators, like

in Oto-Peralías (2017). However, there is always a need to account for sample size and the particularities of a chosen geographic area. This paper only takes frequency, for example, and there is still potential in treating QC's nearly 4,000 unique odonyms in a more statistically useful manner. Furthermore, a comparison of the typology and its quantities with those of other cities is also intriguing; due to time and space constraints however, this study unfortunately misses on the opportunity to compare its odonymy with those of Oto-Peralías (2017) for Spain, Hsiyan (2020) for Amman, Jordan, and Perono Cacciafoco and Tuang (2018) for Singapore.

The second direction is a localization and closer look at odonyms and other toponyms of districts or barangays. A smaller scope allows for greater focus and precision with the data and information that can be gathered. There are plenty of ways this can be approached: perceptions and perspectives of inhabitants on their odonyms and street naming practices can be gathered, like in Hsiyan (2020); the historical development and stories of individual or clusters of odonyms can be uncovered from interviews or local knowledge; the effect of an area's geography and resident demographics on its preference in street names or categories, and vice versa, can be looked at; the changes and sedimentation of names for streets and its segments, whether formal or informal, can be studied; the street sign itself and its presence and interaction with the rest of the linguistic landscape can also be explored.

Lastly, OSM's human element and limitations in its code ended up being factors. While OSM easily generated a list of odonyms, it did so indiscriminately, and cleaning up the data it yielded amounted to considerable menial work. The use of official government data and lists

as resources remains most preferable if at all they are available. But if not, this paper may have just paved the way towards an administratively useful odonymy and index of odonyms. Regardless, cities and their streets and spaces are still socio-historical constructs that are always "under construction" (Massey, 2005, p. 9). Streets will always be grazed and rebuilt, destroyed and recreated, and endlessly renamed. The shifting subject of odonymy makes it so that the project itself must also be continuously constructed.

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7 Appendix

7.1 Appendix 1

Base Code Used in Overpass Turbo to Produce a List of Streets in an Area.

```
[out:csv("name";false)];
area[name="AREA"];
way(area)[highway][name];
for (t["name"])
(
  make x name=_.val;
  out;
);
```

Steps in using the code:

1. One narrows down the area/scope for extraction of street names by typing the place name in place of AREA in this line: area[name="AREA"].

2. The code relies on how places and areas are labeled in OSM. Unfortunately, if one or more geographically distinct places are named/labeled with the same name, the code will cover and extract from all places in the world with that name. For example, replacing AREA in the search query code with "Manila" will extract street names from all places named "Manila" all over the world (i.e. in NCR, in Spain, etc.). This limitation makes it particularly difficult to extract accurate data from individual places with foreign and common names (e.g. Manila, Poblacion).

3. Once an area is chosen and typed into the code, one only needs to click "Run" on the top-left portion of the site. Overpass will then load the extracted data on the right side of the screen, arranged in alphabetical order and with duplicates (exactly same strings) removed.

7.2 Appendix 2

The data used in this paper, including (a) a list of all streets generated by Overpass Turbo, (b) a list of all duplicates, non-streets, and removed entries separated from the unique list, (c) a list of all unique street names in Quezon City, and (d) lists of street names in each category, can be found in the public Google Sheets link:

https://tinyurl.com/L199QCStreets / [PUBLIC]_List and Typology of Streets in Quezon City.

Firipin-go o Firipino-go?: Ang Pangalan ng Wikang Pambansa ng Pilipinas sa Wikang Hapones

Kenichiro Kurusu

Abstrak

Sa wikang Hapones, mayroong dalawang pangalan para tukuyin ang wikang Filipino: *Firipin-go* at *Firipino-go*. Sa pamamagitan ng pagsusuri ng mga pamagat ng mga akdang naka-Hapones at mga opisyal na pahayagan ng mga pamahalaan sa Hapon, tatalakayin ng artikulong ito ang mga sumusunod: (1) anu-anong baryasyon ng pangalan ng Wikang Pambansa ang ginagamit sa wikang Hapones?; (2) ano ang mga problema kung mayroong higit sa dalawang baryasyon sa pangalan ng Wikang Pambansa?; at (3) paano pag-iisahin ang pangalan ng Wikang Pambansa sa wikang Hapones? Una, naipakita ng artikulong ito na magkahalong ginagamit ang higit sa dalawang pangalan ng Wikang Pambansa sa wikang

Hapones. Pangalawa, problemado ang pagkakaroon ng higit sa dalawang pangalan para sa iisang wika dahil (a) maaaring maging mahirap hanapin ang mga materyales o impormasyon lalo na sa panahon ng Internet, at (b) maaaring makahadlang ito sa pagpapaunlad at pagpapalawak ng Wikang Pambansa. Samakatuwid, iminungkahi ng artikulo ang mga sumusunod. Una, dapat pag-isahin ang pangalan ng Wikang Pambansa sa *Firipin-go* alinsunod sa kombensyon ng wikang Hapones. Pangalawa, dapat magkaroon ng kamalayan ang mga Hapones sa kanilang paggamit ng terminolohiya kapag binanggit nila ang Wikang Pambansa dahil natatangi sa wikang Hapones ang isyung ito. Sa kasakuluyang lipunan ng Hapon, kung saan umaangat ang presensiya ng wikang Filipino, hindi mainam ang pagbaba ng kadalian sa paghahanap nito. Pangatlo, dapat palakasin ang pagpapakilala kung ano ang wastong pangalan ng Wikang Pambansa hindi lamang sa loob ng Pilipinas kundi sa ibang mga bansa. Bilang kongklusyon, isinasaad ng artikulo na kinakailangang maipabatid ang saloobin ng mga may kapakinabangan sa Pilipinas at Hapon, patungkol sa sitwasyon ng mga wikang pambansa sa ibang bansa upang mapag-isa ang pagtukoy sa Wikang Pambansa ng Pilipinas. Mahalaga ito dahil ang interes at pag-aaral mula sa dayuhang perspektiba ay makakaambag din sa pagpapatibay, pagpapayabong, at pagpapalago ng Wikang Pambansa.

Abstract

In Japanese, there are two names to refer to the Filipino language: *Firipin-go* and *Firipino-go*. This article, by analyzing the titles of books written in Japanese and official documents of governments in Japan, discusses the following: (1) what names of the National Language are used in Japanese?; (2) what could be the problems if there are more than two names of the National Language?; and (3) how could the names of the National Language be unified in Japanese? First, the article has shown that more than two names of the National Language are used interchangeably in Japanese. Second, having more than two language names is problematic because (a) it can be difficult to find materials or information, especially in the age of the Internet, and (b) it can hinder the development and expansion of the National Language. Therefore, the following are proposed. Firstly, the name of the National Language should be unified with *Firipin-go* in accordance with the convention in Japanese. Secondly, the Japanese should be conscious of their use of terminology when they mention the National Language because this issue is unique to Japanese. In modern Japanese society, where the presence of the Filipino language is increasing, the decrease in its searchability is not favorable. Thirdly, it is required to strengthen the dissemination of the appropriate name of the National Language not only in

the Philippines but in other countries. In conclusion, the article claims that it is necessary to communicate the attitude of the stakeholders in the Philippines and Japan regarding the situation of national languages in other countries in order to unify the reference of the National Language of the Philippines. This is important because interest and learning from a foreign perspective will also contribute to the strengthening, enrichment, and growth of the National Language.

Mga Susing Salita: Filipino, Wikang Pambansa, pangalan ng wika, Filipino bilang Wikang Pambansa, pagpaplanong pangwika

1 Introduksyon

Ang Filipino, ang wikang pambansa ng Pilipinas na itinakda sa Konstitusyon ng Republika ng Pilipinas noong 1987, ay isa sa mga pinakamahalagang wikang banyaga sa lipunan ng Hapon dahil sa relasyon at kaugnayan ng bansang Pilipinas at Hapon. Halimbawa, ang mga Pilipino ay ika-apat na pinakamalaking pangkat (322,046 o 9.4%) ng mga dayuhang rehistrado sa Hapon noong 2023 (Immigration Service Agency, Japan, 2024). Bukod pa rito, ang mga estudyanteng Pilipino na Filipino ang kanilang wikang kinagisnan ay ang ikatlong pinakamalaking pangkat ng mga dayuhang estudyante sa mga paaralan sa Hapon (Ministry of Education, Culture, Sports, Science and Technology, 2021). Dahil dito, Filipino rin ang ginagamit sa mga pampublikong dokumento ng pambansa at lokal na pamahalaan sa Hapon upang tulungan ang mga Pilipinong naninirahan sa Hapon

sa kanilang pang-araw-araw na pangangailangan. Kinakailangan din ang mga tagasalin sa Filipino at Hapones para sa pulisya, hukuman, pagamutan, at pamayanan. Tinuturo rin ang Filipino para sa mga Hapones sa ilang mga unibersidad at pribadong eskuwelahang pangwika sa Hapon. Sa madaling salita, lalong tumataas ang presensiya ng Filipino sa lipunang Hapon kaysa noon.

Ngunit, sa wikang Hapones, mayroong dalawang pangalan na tumutukoy sa Wikang Pambansa[1] ng Pilipinas: *Firipin-go* (フィリピン語 lit. 'Pilipinas-wika'), alinsunod sa kombensyon sa wikang Hapones at *Firipino-go* (フィリピノ語, lit. 'Filipino-wika'), alinsunod sa nakasulat sa Konstitusyon ng Pilipinas (Ang *-go* ay isang morpema para tukuyin ang 'wika' sa wikang Hapones). Halimbawa, tingnan natin ang artikulo sa Wikipedia tungkol sa wikang Filipino sa wikang Hapones, kung saan ilang baryasyon ang nakalagay sa loob ng isang artikulo:

> ***Firipin-go***
>
> "***Firipin-go*** (*Firipin-go*, ***Piripino***, ***Firipino***, ***Filipino***) ay wikang pambansa ng Pilipinas, at isa sa mga wikang opisyal na itinakda sa Konstitusyon ng Pilipinas noong 1987 […] ('Firipin-go', 2023, akin ang salin at italic)."

Dito sa pamagat at unang pangungusap ng artikulo, nakalista na ang tatlong pangalan: *Firipin-go*, *Piripino-go* 'Pilipino,' at *Firipino-go*. Nakikita agad ang di-pagkakatugma sa pagpapaliwanag. Ang pagkakaroon ng higit sa dalawang pangalan o di-pagkakatugma ng

[1]Dahil tatalakayin ang baryasyon ng pangalan, gagamitin ang terminong Wikang Pambansa sa artikulong ito.

pangalan ng Wikang Pambansa ay maaaring magdulot ng mga suliranin sa praktikal na paggamit at pagpapakalat ng Wikang Pambansa sa bansang Hapon. Samakatuwid, nilalayon ng artikulong ito na talakayin ang sumusunod na mga katanungang pananaliksik: (1) anu-anong baryasyon ng pangalan ng Wikang Pambansa ang ginagamit sa wikang Hapones?; (2) ano ang mga problema kung mayroong higit sa dalawang baryasyon sa pangalan ng Wikang Pambansa?; at (3) paano pag-iisahin ang pangalan ng Wikang Pambansa sa wikang Hapones?

2 Naunang mga Pag-aaral tungkol sa Pangalan ng Wika

Hindi lang sa Filipino ang isyu ng pagkakaroon ng higit sa dalawang pangalan sa isang wika. Kaunti lamang ang mga naunang pag-aaral tungkol sa pangalan ng wika ngunit hindi nagkukulang. Sa seksyong ito, tingnan muna natin ang mga pangkalahatang prinsipyo na iminungkahi ni Haspelmath (2017) at prinsipyo sa wikang Hapones ni Tabayashi (2019) tungkol sa pangalan ng mga wika. Titingnan din natin ang mga parehong kaso kung saan ginagamit ang higit sa dalawang pangalan sa isang wika dahil sa sosyolingguwistikong kalagayan ng mga wika.

2.1 Pangkalahatang Prinsipyo sa Pangalan ng Wika

Nagmungkahi si Haspelmath (2017) ng labing-isang prinsipyo sa pangalan ng mga wika para sa ginagawa nilang panlingguwistikang database (Glottolog.org), isang naka-Ingles na database kung saan dapat may isa lamang pangalan ang bawat isang wika. Pinapakita sa Talahanayan 1 ang mga prinsipyong ito.

Talahanayan 1. Labing-isang Prinsipyo sa Pangalan ng mga Wika, batay kay Haspelmath (2017) (akin ang salin)

1	Ang mga pangalan ng wika (tulad ng mga pangalan ng siyudad) ay mga hiram na salita hindi paglilipat-koda
2	Ang mga pangalan ng di-pangunahing mga wika ay hindi tinatrato nang iba sa mga pangalan ng mga pangunahing wika
3	Ang bawat wika ay may natatanging pangalan
4	Ang mga bagong pangalan ng wika ay hindi ipinakilala maliban kung wala sa mga kasalukuyang pangalan ang katanggap-tanggap sa ilang kadahilanan
5	Hindi dapat gamitin ang mga pangalan ng wika na tinututulan ng maraming nagsasalita
6	Ang mga pangalan ng wika sa Ingles ay isinulat gamit ang mga ordinaryong letrang Ingles at iba pang kilalang mga letra
7	Hindi katanggap-tanggap ang mga hindi pangkaraniwang halaga ng pagbigkas ng mga letrang Ingles
8	Dapat na maibigkas ang mga pangalan ng wika para sa mga nagsasalita ng Ingles
9	Ang mga pangalan ng wika ay nagsisimula sa malaking letra
10	Ang mga pangalan ng wika ay maaaring may istruktura ng modifier-head
11	Ang paggamit ng mga kilalang may-akda ay binibigyan ng malaking timbang

Bagaman ang mga prinsipyong ito ni Haspelmath (2017) ay nakatutok sa wikang Ingles, may bisa rin ito sa iba pang mga wika ayon sa kaniya, lalo na ang unang apat na prinsipyo na naka-*highlight* sa Talahanayan 1 na umaangkop din sa diskusyon ng artikulong ito.

Sinasaad ng unang prinsipyo na ang mga pangalan ng wika (tulad ng pangalan ng siyudad) ay hiram na salita, at hindi paglilipat-koda. Kombensyonal na salita ang pangalan ng wika, i.e., maaaring magkaiba sa autoglottonym (i.e. ang pangalan ng wika sa wikang ito) ang pangalan ng wika sa isang wika. Halimbawa, *German* ang tawag sa wikang Ingles habang *Deutsch* naman ang tawag sa mismong wikang Aleman; *Japanese*

ang tawag sa wikang Ingles habang *Nihon-go* naman sa mismong wikang Hapones. Inihalimbawa ni Haspelmath na pareho ito sa pangalan ng siyudad, kadalasan hindi paglilipat-koda kundi hiram na salita, e.g., *Manila* sa Ingles, Maynila sa Tagalog/Filipino, at *Manira* sa Hapones. Sa madaling salita, puwedeng magkaiba ang pangalan ng wika sa iba't ibang wika at hindi kailangan maging pareho.

Ayon sa ikalawang prinsipyo, ang mga pangalan ng di-pangunahing mga wika ay hindi tinatrato nang iba sa mga pangalan ng mga pangunahing wika. Sa madaling salita, walang kinalaman sa kalakihan ng wika o karamihan ng nagsasalita ang unang prinsipyo. Ang unang prinsipyo ay naaangkop kahit malaki o maliit ang isang wika. Ibig sabihin, puwede ring magkaiba ang pangalan ng kahit anong wika sa ibang mga wika (ngunit, maaaring ibukod ang wika ng nasyon-estado sa mga ibang wika sa kaso ng wikang Hapones: babalikan natin ito sa susunod na seksyon).

Magkakaugnay ang ikatlo at ikaapat na prinsipyo: Bawat wika ay may natatanging pangalan at hindi ipinakikilala ang mga bagong pangalan ng wika maliban kung wala sa mga kasalukuyang pangalan ang katanggap-tanggap sa ilang kadahilanan. Dagdag pa rin ni Haspelmath (2017) na "ang mga wikang walang natatanging pangalan o madalas binabago ang pangalan ay mas mahirap matandaan o hanapin (hal. sa internet) […]" (p. 85, akin ang salin). Sa madaling salita, dapat natatangi ang pangalan ng wika o dapat walang higit sa dalawang pangalan.

2.2 Kombensyon ng Wikang Hapones sa Pangalan ng Wika

Tinalakay ni Tabayashi (2019) ang dalawang kombensyon kung paanong tawagin ang isang wika sa wikang Hapones, depende sa mga estado ng wika (Talahanayan 2). Una, maaaring gamitin ang pangalan ng bansa o rehiyon kasama ang hulaping *-go* (語, 'wika') sa sumusunod na kondisyon: (a) walang pampulitiko o panlipunang kaguluhan sa isang bansa o rehiyon, at/o (b) ang wika ay matatag at mayroong opisyal o pambansang estado sa isang bansa o rehiyon. Ang mga halimbawang wika ay sumusunod: *Furansu-go* 'wikang Pransya,' *Supein-go* 'wikang Espanyol,' *Chuugoku-go* 'wikang Tsina,' atbp. Madalas itong ginagamit sa Hapon dahil malinaw at simple lang ang paraang ito na sinasalamin ang pangalan ng bansa o rehiyon sa pangalan ng wika o vice versa. Alinsunod dito ang katawagang *Firipin-go* dahil *Firipin* din ang karaniwang katawagan sa bansang Pilipinas sa wikang Hapones.

Pangalawa, maaaring gamitin ang pangalan ng etnolingguwistikang grupo kung saan sinasalita ang wika o autoglottonym. Madalas itong nangyayari kapag ang wika ay walang opisyal o pambansang estado, i.e., rehiyonal na wika o hindi kinikilala nang mabuti ang wika sa Hapon. Ang mga halimbawa nito ay sumusunod: *Ainu-go* 'wikang Ainu,' *Maori-go* 'wikang Maori,' *Sami-go* 'wikang Sámi,' atbp. Kasama dito ang mga wika sa Pilipinas, maliban sa Filipino at Ingles: e.g., *Sebuano-go* 'wikang Sebwano,' *Irokano-go* 'wikang Ilokano,' *Hirigainon-go* 'wikang Hiligaynon,' atbp. Alinsunod dito ginagamit ang katawagang *Firipino-go* sa wikang Hapones, dahil *Firipino* ang naka-*transcribe* na tunog mula sa autoglottonym o nakalagay sa 1987 Konstitusyon.

Talahanayan 2. Ang mga Kombensyon sa Pangalan ng Wika sa Wikang Hapones

Prinsipyo	Halimbawa	Kaso sa Wikang Pambansa
1. Pangalan ng bansa/rehiyon + *-go*	*Furansu-go* 'wikang Pransya;' *Supein-go* 'wikang Espanyol;' *Chugoku-go* 'wikang Tsina,' atbp.	*Firipin-go*
2. Pangalan ng etnolingguwistikang grupo o autoglottonym + *-go*	*Ainu-go* 'wikang Ainu;' *Maori-go* 'wikang Maori;' *Sami-go* 'wikang Sámi'	*Firipino-go*

Subalit, magkakaroon ng isyu ang prinsipyong ito dahil ang wika, bansa, at grupong etniko ay hindi laging nagkakataong magkatulad at hindi puwedeng ihiwalay nang malinaw. Ang kilalang halimbawa nito ay ang mga pangalan ng wikang Koreano sa wikang Hapones gaya ng binanggit ni Tabayashi (2019). Sa Tangway ng Korea, wikang Koreano ang sinasalita sa parehong bansa: Demokratikong Republikang Bayan ng Korea (Hilagang Korea) at Republika ng Korea (Timog Korea), bagaman ang mga heograpikong diyalekto ang naiuulat. Ngunit, sa wikang Hapones, mayroong iba't ibang pangalan para tukuyin ang wikang Koreano. Ayon sa unang prinsipyo sa wikang Hapones, *Chosen-go* (朝鮮語 'wikang Joseon') o *Kankoku-go* (韓国語 'wikang Hanguk') ang posibleng pangalan, ngunit tinutukoy lang ang isa't isang bansa dahil nagkaiba rin nang ganap ang pangalan ng dalawang bansa sa wikang Hapones (*Kita-Chosen* ang Hilagang Korea habang *Kankoku* ang Timog Korea). Dagdag pa rito, may diskriminasyong implikasyon

ang *Chosen* 'Joseon' sa ilang mga konteksto. Kaya upang maiwasan ang sosyopolitikal na problema, ginagamit din ang mga sumusunod bilang kompromisong paraan: ang tambalan na *Chosen-Kankoku-go* (朝鮮韓国語 'wikang Joseon-Hanguk'), ang hiniram sa Ingles na *Koria-go* (コリア語 'wikang Korea'), at ang pangalan ng letra na *Han-guru-go* (ハングル語 'wikang Hangul').

2.3 Ang mga Kaso kung saan Ginagamit ang higit sa Dalawang Pangalan para sa Isang Wika

May iilan din namang mga kaso kung saan higit sa dalawang pangalan ang ginagamit sa pagtukoy sa iisang wika. Halimbawa nito ang wikang Malay sa Indonesia at Malaysia. Kagaya ng Pilipinas, multilingguwal din ang mga bansang Indonesia at Malaysia kung saan sinasalita ang wikang Malay bilang isang lingua franca sa rehiyon. Parehong pinili ng bansang Indonesia at Malaysia ang wikang Malay bilang basehan ng kani-kanilang wikang pambansa dahil sa paglago ng nasyonalismo noong panahon ng pagsakop ng mga dating kolonisador. Ngunit iba-iba ang naging resulta ng kani-kanilang pagpaplanong pangwika, lalo na sa perspektiba ng pangalan ng wikang pambansa.

Sa Indonesia, binigyan ang wikang Malay ng bagong pangalan na *Bahasa Indonesia* sa *Kongres Pemuda Kedua* 'Ikalawang Kongreso ng Kabataan' noong 1928, habang nasasakupan pa ng Olandes (Paauw, 2009). Ang pagpapahayag ng pagbabago (o paglikha) ng pangalan nito ay mayroong simbolikong kahulugan patungo sa kasarinlan ng bansang Indonesia, na may kinalaman sa nasyonalismo (Sneddon, 2003). Hanggang ngayon, itinuturing na matagumpay ang bansang Indonesia sa pagpapatatag at pagpapalawak ng katutubong wika bilang

wikang pambansa (Paauw, 2009). Matatag din ang pangalan nito hindi lamang sa loob ng bansa kundi sa buong daigdig. Ang dahilan nito ay ang sitwasyong panlingguwistika sa bansang Indonesia. Noong pinili ang wikang Malay, sinasalita ito ng limang porsyento lamang ng populasyon sa buong kapuluan, bagaman ito ang pangunahing wika sa pakikipagtalastasan ng iba't ibang etnolingguwistikang grupo at pangangalakal sa buong kapuluan at rehiyon (Sneddon, 2003). Ibig sabihin, walang kinalaman ang wikang Malay sa mga partikular na grupong panlipunan (e.g. wikang Dutch bilang wika ng mga elite) o grupong etniko (e.g., wikang Javanese bilang wika ng pinakamalaking pangkat-etniko). Dahil sa kawalan ng etnisidad, puwedeng maging wikang pambansa nang walang kaguluhan sa pangalan para pag-isahin ang maraming etnolingguwistikang grupo sa buong bansa.

Sa Malaysia naman, pinili rin ang wikang Malay o *Bahasa Melayu* pero hindi binigyan ng bagong pangalan. Itinakda rin ito sa Artikulo 152 (1) ng Konstitusyon ng bansang Malaysia na itinatag noong 1957 ("Federal Constitution of Malaysia", 2010). Subalit nararanasan pa ng bansang Malaysia ang kaguluhan sa pangalan ng kanilang wikang pambansa. Dahil ito sa malakas na pagkakabit sa etnikong Malay (Coluzzi, 2017). Upang ilayo ang etnisidad ng Malay sa wikang pambansa, pinalitan ito ng bagong katawagan na *Bahasa Malaysia* noong 1969 (Hashim, 2009). Pagkatapos ng paulit-ulit na pagbabago sa pangalan sa pagitan ng wikang Malay at wikang Malaysia (noong 1986 at 2007), nananatiling hindi matatag ang wikang ito para sa buong populasyon at lalo pang ginagamit ang parehong pangalan para tukuyin ang wikang pambansa (Gill, 2005; Coluzzi, 2017).

Sinasalamin din sa wikang Hapones ang paulit-ulit na pagbabago sa pangalan ng wikang Malaysia: *Maree-go* 'wikang Malay' o *Mareesia-go* 'wikang Malaysia' habang matibay na ang pangalan ng wikang Indonesia: *Indonesia-go*.

3 Ang mga Pangalan ng Wikang Pambansa: Tagalog, Pilipino, at Filipino

Ang Filipino ang wikang pambansa ng Pilipinas gaya ng itinakda sa Konstitusyon ng Republika ng Pilipinas noong 1987. Ito ang opisyal at tanging pangalan ng wikang Filipino. Ngunit nalilito pa o hindi mapakiwari kung ano nga ba ang pagkakaiba ng mga pangalan nito: Tagalog, Pilipino, at Filipino, dahil sa komplikadong kasaysayan ng Wikang Pambansa. Tinalakay ng ilang mga pananaliksik (Sibayan, 1975; Almario, 1997; Almario, 2014; Tupas, 2015) ang kasaysayan, pagkakaiba, o mga suliranin ng nasabing iba-ibang katawagan ng Wikang Pambansa.

Nagbago na ng dalawang beses ang pangalan ng Wikang Pambansa at komplikado na rin ang mga opisyal na mga pahayag kung saan itinakda ang pangalan at estado ng Wikang Pambansa. Samakatuwid, ang seksyong ito ay maglalagom ng kasaysayan ng (pangalan ng) Wikang Pambansa at ang kasalukuyang pananaw ukol sa pangalan ng Wikang Pambansa.

3.1 Ang Kasaysayan ng (Pangalan ng) Wikang Pambansa

Naranasan ang ilang pagbabago sa pangalan at estado ng Wikang Pambansa ng Pilipinas patungo sa kasalukuyan nitong anyo. Sa

seksyong ito, ibibigay ang pagbubuod ng kasaysayan ng Wikang Pambansa at ang mga pangalan nito.

Ang katutubong wikang Tagalog na ginagamit sa Kamaynilaan at mga kalapit na lugar ang naging batayan ng Wikang Pambansa noong 1937 hanggang 1959. Ang talakayan ng pagbuo ng Wikang Pambansa ay nagsimula noong panahon ng pananakop ng mga Amerikano, pagkatapos ng higit sa 300 taong kolonisasyon ng mga Kastila. Dahil Espanyol at Ingles ang nagsilbing wikang opisyal o lingua franca na mula sa mga dayuhan, may namuong pagkilos na nagmumungkahi na ang wikang pambansa ay dapat nakabatay sa isang wikang katutubo, kasabay ng patuloy na paglago ng sentimyentong makabayan. Kung gayon, noong 1937, pinili ang Tagalog bilang batayan ng Wikang Pambansa, gaya ng ipinroklama ni Pangulong Manuel L. Quezon. Ang Tagalog o Wikang Pambansa lang ang tanging pangalang tumutukoy sa wikang pambansa.

Pilipino ang ikalawang pangalan ng Wikang Pambansa mula noong 1959 hanggang 1972. Iniutos ito ng Kagawaran ng Edukasyon sa Kautusan Blg. 7 (Department of Education Order No. 7), na may motibasyon na maihiwalay (Almario, 1997) ang Wikang Pambansa sa Tagalog o 'de-ethnicize' (Tupas, 2015) ang Tagalog. Kung gayon, nagkaiba na ang wikang Pilipino sa wikang Tagalog. Ngunit pareho lang naman ang anyo ng dalawa: i.e., ang pangalan lamang ang pagkakaiba. Sa madaling salita, ang Pilipino ay nabigong tanggalin ang pagkaka-etniko ng Tagalog. Kung tutuusin, natanggap nito ang pagpuna mula sa mga kontra Tagalog. Ang pangunahing dahilan ay ang pangalan nito mismo: pagkakasunod ng Pilipino sa pagbigkas at ortograpiya (madalas itong tinutukoy na 'abakada') ng Tagalog.

Sa Tagalog, pinapalitan ang pinagbabatayang ponemang /f/ o ortograpikong letrang *f* sa [p] o *p* lalo na sa mga hiram na salita dahil walang mga ganito sa ponolohiya o ortograpiya ng Tagalog. Kaya naman naituturing pa na ang Pilipino ay hindi naiiba sa pinagbatayan nitong wikang Tagalog.

Para matugunan ang problemang ito, ang katawagang 'Filipino' ay nilikha para palitan ang Pilipino. Ang 1973 Konstitusyon ang kauna-unahang gumamit ng katawagang Filipino habang nagtatakda pa na ang Ingles at Pilipino ang wikang opisyal. Ang mga nakalagay sa Seksyon 3, Artiklo XV sa 1973 Konstitusyon ay sumusunod ("The 1973 Constitution of the Republic of the Philippines", 1973):

> (2) "The Batasang Pambansa shall take steps towards the development and formal adoption of a common national language to be known as *Filipino*." (akin ang italic)
>
> (3) "Until otherwise provided by law, English and Pilipino shall be the official languages."

Nagdulot ang 1973 Konstitusyon ng di-karaniwang sitwasyon sa pagtalakay ng Wikang Pambansa: kahit na wala pa itong aktuwal na anyo, itinakda na ang Filipino bilang wikang pambansa para tanggalin ang Pilipino.

Sa 1987 Konstitusyon, na may bisa hanggang sa kasalukuyan, muling ginamit ang katawagang Filipino. Binigyan ito ng mas malinaw pang estado at suporta ng Konstitusyon. Narito ang nakalagay sa Seksyon 6, Artiklo XIV ("The Constitution of the Republic of the Philippines", 1987):

> "The national language of the Philippines is *Filipino*. As it evolves, it shall be further developed and enriched on the basis of existing Philippine and other languages. […]" (akin ang italic)

Muli, sinubukan nitong ihiwalay ang Wikang Pambansa sa "batik na Tagalog" (Almario, 1997, p. 46). Bukod dito, nilayon nitong higit pang "payamanin at linangin ang Filipino bilang isang Wikang Pambansa sa pamamagitan ng mga katutubong wika ng bansa" (p. 48). Sinimbolo ng pagsama ng letrang *f* sa pangalan ang layon na isasama ang mga salita mula sa mga ibang wika sa Pilipinas na may ponemang /f/, para sa tunay na wikang Pambansa, hindi wika ng mga Katagalugan.

Inilagom sa Talahanayan 3 ang kasaysayan ng pangalan at estado ng Wikang Pambansa ng Pilipinas.

Talahanayan 3. Paglalagom ng Kasaysayan ng Pangalan at Estado ng Wikang Pambansa ng Pilipinas

Taon	Pangalan	Estado	Legal na batayan
1937-1959	Tagalog; Wikang Pambansa	Batayan ng wikang pambansa	Proklamasyon ni Pangulong Quezon
1959-1973	Pilipino	Wikang Pambansa	Kagawaran ng Edukasyon sa Kautusan Blg. 7
1973-1987	Filipino	Wikang pambansa (na walang aktuwal na anyo)	1973 Konstitusyon
1987-kasalukuyan	Filipino	Wikang pambansa at opisyal	1987 Konstitusyon

3.2 Ang Kasalukuyang Pananaw tungo sa Pangalan ng Wikang Pambansa

Dahil sa komplikadong kasaysayan ng estado at pangalan ng Wikang Pambansa, na tinalakay sa nakaraang seksiyon, nalilito pa rin maging ang mga Pilipino patungkol dito. Kung kaya't ang paksang ito ay patuloy na napapabilang sa mga talakayang akademiko at pati na rin di-akademiko.

Halimbawa, nagsagawa si Sibayan (1975) ng pananaliksik tungkol sa paggamit ng wika at pagtingin sa wika sa Pilipinas. Sa kaniyang pag-aaral, apat sa mga limang guro at tatlo sa mga limang householder ay sumagot na pareho lang ang Pilipino at Tagalog. Si Almario (2014) naman ay naglimbag ng bilingguwal na aklat na may pamagat na *Madalas itanong hinggil sa Wikang Pambansa*. Sa aklat na ito, may mga kabanatang pinamagatang *Naiiba nga ba ang Pilipino sa Tagalog?* (p. 44) at *Bakit tinawag na ang wikang Filipino ang wikang Pilipino?* (p. 46). Ipinahihiwatig lamang nito na nakakalito ang diskusyon ng pagbabago ng katawagan ng Wikang Pambansa.

Mayroon ding mga nailimbag na nilalayon para sa pangkalahatang mambabasa, tulad ng mga artikulo nina Kilates (2014a, 2014b, 2014c, 2015a, 2015b, 2015c) at Borlongan (2023). Sumulat si Kilates ng dalawang serye ng column noong 2014 at 2015, sa pagdiriwang ng Buwan ng Wika, para magpaliwanag ng kasaysayan ng Wikang Pambansa, kasalukuyang estado, at pagkakaiba ng Tagalog, Pilipino, at Filipino sa relasyon ng sentimyentong kontra-Tagalog na laganap pa sa mga mamamayan. Halos sampung taon ang nakalipas, tinalakay pa rin sa lingguhang kolum ni Borlongan itong kontrobersiyal na paksa sa Wikang Pambansa upang linawin ang pagkakapareho at pagkakaiba ng Filipino at Tagalog. Sinasalamin sa isinulat ni Borlongan kung paano nakakalito para sa mga

mamamayan ang pagbabago ng pangalan kasabay ang pagbabago ng estado at legal na basehan.

Sa panlingguwistikang perspektiba, madalas itinuturing na pareho lang ang Filipino (o dating Pilipino) at Tagalog. Si Borlongan (2018) ay isa sa mga bumanggit nito: "bilang isang dalubwikang-panlipunan, ito [Filipino] ay isa pang pangalan lamang ng Tagalog" (p. 71) dahil naiintindihan nga ng mga nagsasalita ng Filipino sa mga nagsasalita ng Tagalog at natural na pamamaraan ang panghihiram mula sa mga ibang wika na pinagdadaanan ng kahit anong wika. Samakatuwid, ang madalas tinutukoy na Filipino ay istandarisadong bersyon o barayti ng Tagalog (Lesho, 2018; Cruz & Cheng, 2020; Herrera et al., 2022). Dagdag pa rito, halos palaging ipinapaliwanag sa mga pang-akademikong artikulo kung ano ang pagkakaiba ng Filipino at Tagalog at kasaysayan para linawin ito at maiwasan ang pagkalito bago simulan ang linggwistikong diskusyon (cf. Himmelmann, 2005; Reid & Schachter, 2008; Nagaya & Uchihara, 2021).

Sa madaling salita, pareho ang Filipino sa Tagalog mula sa panlingguwistikang perspektiba, ngunit binigyan ang Filipino ng sosyo-politiko o ideolohikal na tungkulin bilang wikang pambansa ng Pilipinas. Kung kaya't, magkahalo pa ring ginagamit ang Filipino at Tagalog (at kahit ang dating pangalang Pilipino) upang tukuyin ang Wikang Pambansa.

4 Obserbasyon sa Wikang Hapones

Maliban sa kalituhan at magkahalong paggamit ng Tagalog, Pilipino, at Filipino bilang pangalan ng Wikang Pambansa ng Pilipinas, mayroong

dalawa pang pangalan upang tukuyin ang Wikang Pambansa ng Pilipinas sa wikang Hapones. Una, ang katawagang *Firipin-go* ay binubuo ng pangalan ng bansa (*Firipin* 'Pilipinas') at ng hulaping *-go* 'wika,' alinsunod sa kombensyon sa wikang Hapones. Pangalawa, ang katawagang *Firipino-go* ay binubuo ng autoglottonym ng Wikang Pambansa (*Firipino* 'Filipino') at ng hulaping *-go* 'wika,' alinsunod sa nakasulat sa 1987 Konstitusyon ng Pilipinas.

Sisiyasatin ng seksyong ito kung anong pangalan—*Firipin-go*, *Firipino-go*, o iba pa—ang mas ginagamit sa wikang Hapones para tukuyin ang Wikang Pambansa. Para maimbestigahan ito, sinuri ang mga sumusunod: (1) Ang pamagat ng mga teksbuk at diksiyonaryo na inilimbag sa bansang Hapon, at (2) Ang website o opisyal na dokumento ng mga pambansa at lokal na pamahalaan sa Hapon.

4.1 Ang Pamagat ng mga Teksbuk at Diksiyonaryo na Inilimbag sa Bansang Hapon

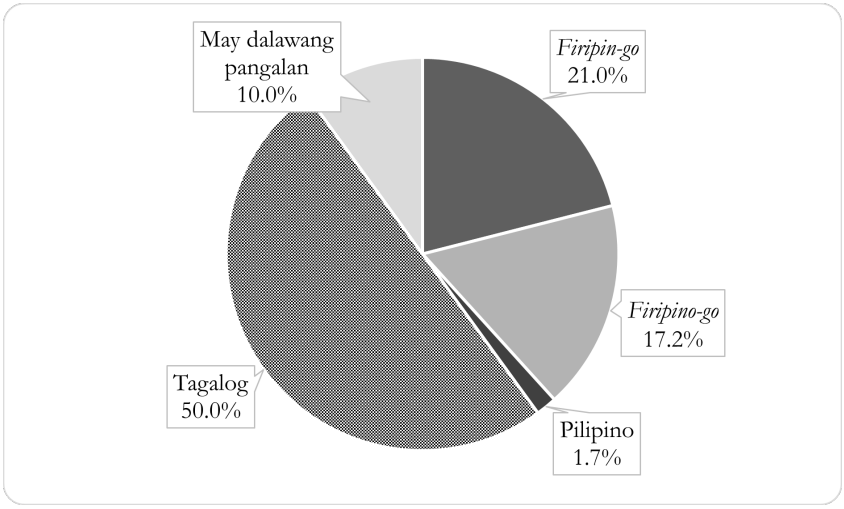
Sinuri ang pamagat ng mga teksbuk at diksiyonaryo na nakasulat sa wikang Hapones at inilimbag sa bansang Hapon batay sa koleksyon ng National Diet Library. Ito ay isang pambansang aklatan sa Hapon na naglilikom ng lahat ng mga bagong publikasyon na nailimbag sa Hapon sa pamamagitan ng Legal Deposit System, alinsunod sa National Diet Library Law (National Diet Library, w.p.). Dahil dito, wastong sumangguni sa koleksyong ito upang makita ang aktuwal na paggamit ng pangalan ng Wikang Pambansa sa mga nailimbag na akda. Ginamit ko ang National Diet Library Online Search and Request Service (NDL Online) upang sumangguni sa koleksyon. Nilagay ko sa search box ng NDL Online ang mga sumusunod na

posibleng pangalan ng Wikang Pambansa sa wikang Hapones: フィリピン語 (*Firipin-go* 'Filipino'), フィリピノ語 (*Firipino-go* 'Filipino'), ピリピノ語 (*Piripino-go* 'Pilipino'), at タガログ語 (*Tagarogu-go* 'Tagalog'). Minarapat kong alisin ang mga artikulo, papel, at librong pang-akademiko sa aking saklaw ng analisis dahil maaaring mayroong partikular na pilosopiyang pangwika o layuning pananaliksik ang mga may-akda sa kanilang napiling gamitin na pangalan. Sa kabuuan, 290 na teksbuk at diksiyonaryo ang sinuri sa analisis.

4.1.1 Pangkalahatang Resulta

Halos pare-parehong ginamit ang *Firipin-go* (61 na akda o 21.0%) at *Firipino-go* (50 o 17.2%) sa mga teksbuk at diksiyonaryo na inilimbag sa bansang Hapon. Ang mga halimbawa sa *Firipin-go* ay フィリピン語入門 (*Firipin-go nyuumon* 'Introduksyon sa Filipino') ni Izumi (1982); 日本語-フィリピン語両用会話集 (*Nihon-go Firipin-go ryooyoo kaiwa shuu* 'Hapones-Filipino dalawahang pag-uusap') ni Ichikawa (2002); at フィリピン語 (*Firipin-go* 'Filipino') ni Oue at Yoshizawa (2012). Ang mga halimbawa naman sa *Firipino-go* ay フィリピノ語テキスト (*Firipino-go tekisuto* 'Filipino teksto') ni Tsuda (1988); フィリピノ語のしくみ (*Firipino-go no shikumi* 'Ang sistema ng Filipino') ni Shimodaira (2009); at 大学のフィリピノ語 (*Daigaku no Firipino-go* 'Filipino para sa kolehiyo') ni Yamashita et al. (2018). Tagalog pa rin ang pinakaginagamit na katawagan (145 o 50.0%) habang Pilipino ang ginamit sa kakaunting mga akda (5 o 1.7%). Ipinapakita ang resultang ito ng Larawan 1.

Binigyan-pansin din ang mga akda na may dalawang pangalan (29 o 10.0%). Sa mga akdang ito, nakalagay ang dalawang pangalan



Larawan 1. Ang Porsyon ng Baryasyon ng Pangalan ng Wikang Pambansa na Ginamit sa mga Akda sa Bansang Hapon (n=290)

sa pamagat: kadalasan, binibigay ang unang pangalan tapos nasa panaklong ang pangalawang pangalan: e.g., *Firipin-go* (*Tagarogu-go*) 'Filipino (Tagalog).' Maaaring ito ay upang mas linawin pa kung tungkol sa anong wika ang tinalakay sa mga akda. Ngunit, magkahalo pa ring ginamit ang *Firipin-go* at *Firipino-go* sa mga kasong ito. Ang mga halimbawa ng mga ito ay binigyan sa Talahanayan 4.

Talahanayan 4. Ang mga Halimbawa ng mga Akda kung saan Dalawang Pangalan ng Wikang Pambansa ang Ginamit sa Bansang Hapon (n=29)

Unang katawagan	Pangalawang katawagan	Bilang ng mga akda	Porsyento	Halimbawang akda
Piripino-go	*Tagarogu-go*	7	24.1%	ピリピノ語(タガログ語)文法(*Piripino-go (Tagarogu-go) bunpoo* 'Pilipino (Tagalog) gramar') ni Moriguchi (1982)

Unang katawagan	Pangalawang katawagan	Bilang ng mga akda	Porsyento	Halimbawang akda
Piripino-go	*Firipin-go*	2	6.9%	六カ国語会話 第6(日本語,英語,中国語,ピリピノ(フィリピン)語,インドネシア語,マレー語)(*Rokkakoku-go kaiwa dai 6 (Nihon-go, Ei-go, Piripino (Firipin)-go, Indonesia-go, Maree-go)* 'Pag-uusap sa anim na wika 6 (Hapones, Ingles, Pilipino (Filipino) Indonesia, Malay)') ng Japan Travel Bureau Foundation Publishing (1989)

Unang katawagan	Pangalawang katawagan	Bilang ng mga akda	Porsyento	Halimbawang akda
Firipino-go	*Tagarogu-go*	8	27.6%	法律用語対訳集 フィリピノ(タガログ)語編 (*Hooritsu yoogo taiyaku shuu Firipino (Tagarogu)-go hen* 'Bilingguwal na glosaryo sa mga legal na terminolohiya: Edisyon ng Filipino (Tagalog)') ng Criminal Affairs Bureau, Ministry of Justice (1992)

Unang katawagan	Pangalawang katawagan	Bilang ng mga akda	Porsyento	Halimbawang akda
Firipin-go	*Tagarogu-go*	12*	41.4%	(フィリピン語 (タガログ語) : 大人のイラスト会話集 *Firipin-go (Tagarogu-go): Otona no irasuto kaiwa shuu* 'Filipino (Tagalog): Libro ng pag-uusap kasama ang larawan para sa mga adulto') ni Kobayashi (2008)

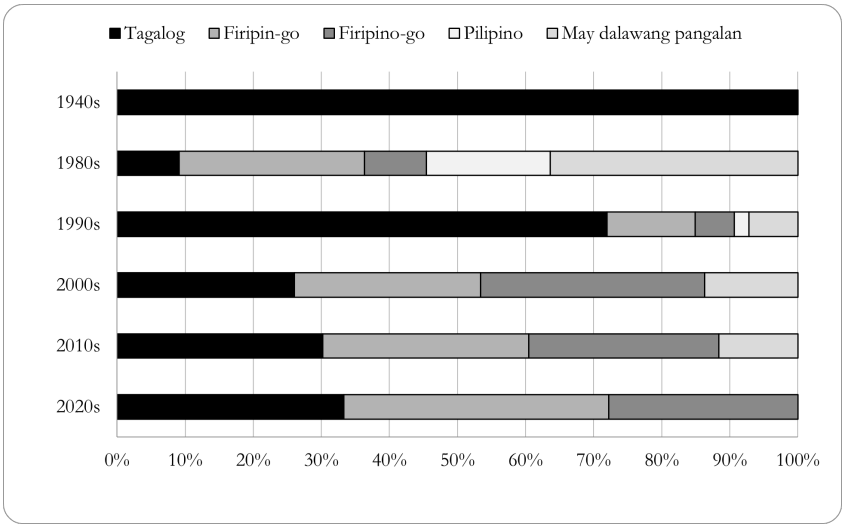
*Kasama rito ang isang libro na baliktad ang pag-aayos ng dalawang pangalan: Tagalog ang una at *Firipin-go* ang pangalawa i.e., *Tagarogu-go* (*Firipin-go*)

4.1.2 Pagbabago ng Pangalan ng Wikang Pambansa sa Pamagat ng mga Teksbuk at Diksiyonaryo sa Iba't Ibang Panahon

Ang 290 na akdang nasasaklaw ng pananaliksik ay nailimbag simula taong 1942 hanggang 2023. Dahil binago ang pangalan at estado ng Wikang Pambansa noong 1937, 1959, 1973, at 1987, sinuri ko rin kung sinunod ng mga pamagat ng mga akda ang polisiyang pangwikang ito.

Pinapakita sa Larawan 2 ang proporsyon ng baryasyon ng katawagan ng Wikang Pambansa sa mga akdang sinuri alinsunod sa panahon. Noong dekada 1940, anim na teksbuk o diksiyonaryo ang inilimbag sa bansang Hapon. Marahil ang mga ito ay para ihanda ang mga opisyal ng Hapon para sa pananakop nila sa Pilipinas dahil nailimbag ang mga ito noong panahon ng pananakop nila sa Pilipinas (1942-1945). Siyempre, Tagalog lang ang ginamit sa pamagat ng mga akda dahil ito lamang ang katawagan ng Wikang Pambansa noong dekada 1940.

Walang natagpuang mga akda patungkol sa Wikang Pambansa ng Pilipinas sa koleksyon ng National Diet Library mula noong dekadang 1950 hanggang 1970. Noong dekada 1980, makikita ang dalawang akdang may Pilipino sa pamagat bagaman hindi na Pilipino ang katawagan ng Wikang Pambansa matapos maipahayag ang Konstitusyon noong 1973 kung saan ang Filipino ay idineklara bilang pambansang wika ng Pilipinas sa unang pagkakataon. Maaaring ito ay dahil hindi pa umaabot sa bansang Hapon ang sapat na impormasyon tungkol sa bagong stipulasyon ng Wikang Pambansa. Noong dekada 1990 din, makikita ang tatlong akdang may Pilipino sa pamagat. Ngunit, ginamit din ang *Firipin-go* at *Firipino-go* sa panahong ito habang Tagalog naman



Larawan 2. Ang mga Baryasyon ng Katawagan ng Wikang Pambansa sa mga Akdang Sinuri alinsunod sa Panahon (n=290)

ang mukhang mas ginamit noong dekada ng 1990 dahil maraming mga akda ang nailimbag ng parehong may-akda.

Noong pumasok ang ika-21 na siglo, ang tatlong baryasyon ay pare-parehong ginamit sa mga akda: Tagalog, *Firipin-go* at *Firipino-go* habang nawala na ang mga akdang may Pilipino sa pamagat. Bagaman maaaring sabihin na kumalat na ang batayang konsepto at pinakabagong estado at pangalan ng Wikang Pambansa sa mga may-akdang Hapones noong dekadang 2000, 2010, at 2020 matapos itong maipahayag ng 1987 Konstitusyon at tatlong dekada na rin ang nakalipas mula nito, Tagalog pa rin ang pinakaginagamit na pangalan at mas magkahalong ginamit ang *Firipin-go* at *Firipino-go* sa pamagat ng mga akda. Sa madaling salita, walang kinalaman sa panahon ng publikasyon ang pagkakaroon ng baryasyon sa katawagan ng Wikang Pambansa.

4.2 Ang Website o Opisyal na Dokumento ng mga Pambansa at Lokal na Pamahalaan sa Hapon

Dahil maraming mga Pilipino ang nakatira sa bansang Hapon, maraming mga website o opisyal na dokumento ng mga pambansa at lokal na pamahalaan ang nililimbag sa Tagalog/Filipino para tulungan ang pamumuhay nila. Kadalasan, ang *top page* o orihinal na dokumento ay sa wikang Hapones, at maaaring piliin ang bersyon sa wikang Tagalog/Filipino o maaaring maakses sa ibang dokumentong naka-Tagalog/Filipino. Kung gayon, sinuri ko kung anu-anong pangalan ang ginagamit dito sa website o opisyal na pahayagan ng mga pamahalaan. Halos pareho lang ang metodolohiya sa naunang pagsusuri: Nilagay ko ang mga sumusunod na posibleng pangalan ng wika sa wikang Hapones: フィリピン語 (*Firipin-go* 'Filipino'), フィリピノ語 (*Firipino-go* 'Filipino'), ピリピノ語 (*Piripino-go* 'Pilipino'), at タガログ語 (*Tagarogu-go* 'Tagalog') gamit ang site search function sa website. Sa kabuuan, 65 na ahensiya ang sinuri (18 ang pambansang ahensiya at 47 ang prefektural na pamahalaan).

4.2.1 Pankalahatang Resulta

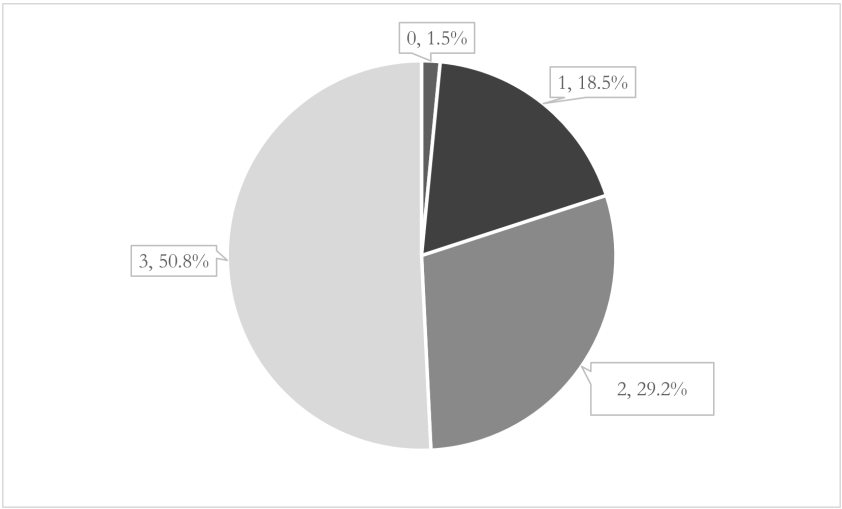
Ang Talahanayan 5 ay nagpapakita kung anong pangalan ang ginamit sa mga website o opisyal na dokumento ng mga pambansa at lokal na pamahalaan sa bansang Hapon. Tagalog pa rin ang may pinakamataas na paggamit habang pare-parehong ginagamit ang *Firipin-go* at *Firipino-go*. Ngunit, kadalasang ginagamit ang higit sa dalawang pangalan sa bawat isang ahensiya o pamahalaan upang mas malinaw na matukoy

ang wikang may nakakalitong pangalan (kaya, hindi naging 100% ang kabuuang porsyento sa Talahanayan 5).

Talahanayan 5. Ang Porsyon ng mga Baryasyon ng Pangalan ng Wikang Pambansa na Ginamit sa mga Website o Opisyal na Dokumento ng mga Pambansa at Lokal na Pamahalaan sa Hapon (n=65)

	Pambansang ahensiya (n=18)	**Lokal na pamahalaan (n=47)**	**Kabuuan (n=65)**	**Porsyento**
Tagalog	15	47	62	95.4%
Firipin-go	12	31	43	66.2%
Firipino-go	12	31	43	66.2%

Gaya ng nabanggit sa nakaraang talata, hindi pinag-isa ang pangalan ng Wikang Pambansa sa karamihan ng pambansa at lokal na pamahalaan sa bansang Hapon. Pinapakita ng Larawan 3 kung ilang mga baryasyon ng pangalan ng Wikang Pambansa ang ginamit sa website o opisyal na dokumento ng mga pambansa at lokal na pamahalaan sa Hapon. Higit sa 50% na ahensiya o institusyon ng pamahalaan ay magkahalong ginagamit ang tatlong pangalan: Tagalog, *Firipin-go*, at *Firipino-go* habang 30% na ahensiya o institusyon ng pamahalaan naman ang gumagamit ng dalawang pangalan. Maaaring sinusubukang palinawin kung sa anong wika maaaring mabasa ng mga mamamayan ang mga dokumento kaya nakalagay ang higit sa dalawang baryasyon ng pangalan ng Wikang Pambansa dahil ang mga opisyal na pahayagan ng mga pambansa at mga lokal na pamahalaan ay dapat madaling makuhanan ng impormasyon o magamit ang anumang nakalathala sa mga ito.



Larawan 3. Ang Bilang ng mga Baryasyon ng Pangalan ng Wikang Pambansa na Ginamit sa Website o Opisyal na Dokumento ng mga Pambansa at Lokal na Pamahalaan sa Hapon

Naobserbahan ang isang natatanging kaso sa isang opisyal na dokumento sa Fukuoka Prefectural Police (2022). Tinukoy ng isang mamamayan na mas karaniwan ang terminong Tagalog kaysa sa *Firipino-go* sa isang pampublikong komento tungkol sa leaflet ng pantrapikong tuntunin sa Hapon para sa mga Pilipino. Sinabi niya na "[…] ang transkripsyon ng 'Firipin-go' na 'Firipino-go' ay maaaring 'Tagarogu-go' sa pangkalahatan" (akin ang salin). Sa madaling salita, lumitaw ang tatlong baryasyon ng pangalan na *Firipin-go*, *Firipino-go*, at Tagalog sa loob ng isang pangungusap na ito. Sumagot naman dito ang Prefektura ng Fukuoka na nakaayon sila sa nakalagay sa website ng Ministry of Foreign Affairs of Japan: "*Firipino-go* ang wikang pambansa. *Firipino-go* at Ingles ang wikang opisyal" (Ministry of Foreign Affairs of Japan, 2023). Malinaw na ipinapakita nito kung gaanong nakakalito

ang maraming pangalan ng Wikang Pambansa sa mamamayang Hapones at Tagalog pa rin ang pinakaginagamit na pangalan.

4.3 Pagbubuod ng Obserbasyon

Sa pamamagitan ng aking pagsusuri gamit ang mga teksbuk, diksiyonaryo, at opisyal na pahayagan ng mga pamahalaan na inilimbag sa bansang Hapon, malinaw ang magkahalo o inkonsistent na paggamit ng baryasyon ng pangalan ng Wikang Pambansa. Maliban sa paggamit ng Tagalog, ang pangalan ng batayang wika ng Wikang Pambansa, parehong ginagamit din ang *Firipin-go* at *Firipino-go*, ang mga natatanging pangalan sa wikang Hapones. Ito ay dahil sa kawalan ng pagkakasunduan sa wikang Hapones kung paano tawagin ang Wikang Pambansa.

Samantala, gaya ng naipakita ng pagsusuri, Tagalog pa rin ang mas madalas gamitin. Sa bansang Hapon, parang mas kinikilala pa ang katawagang Tagalog kaysa sa Filipino (*Firipin-go* at *Firipino-go*) bilang wika sa Pilipinas. Maaaring dahil ito sa (a) malawak na pamilyarisasyon sa katawagang Tagalog bilang wikang kumakatawan ng Pilipinas sa masang Hapon dahil sa matagal na relasyon ng dalawang bansa, at (b) Tagalog pa rin ang ginagamit na katawagan ng mga Pilipinong nakatira sa Hapon na tumutulong sa pagsulat ng mga libro o pagsasalin ng mga dokumento. Sa madaling salita, hindi pa naka-ugat sa Hapon na Filipino na ang katawagan sa wikang pambansa ng Pilipinas. Bagaman kailangan pa ng pag-aaral kung bakit Tagalog ang mas madalas na ginagamit sa Hapon, dahil sa layunin ng artikulong ito, magpopokus ang susunod na seksyon sa mga isyu kapag mayroong dalawang baryasyon sa pangalan ng Wikang Pambansa sa wikang Hapones.

5 Ang mga Suliranin kapag Mayroong Dalawang Baryasyon sa Pangalan ng Wikang Pambansa

Sa seksyong ito, tatalakayin ko na magiging problema ang pagkakaroon ng higit sa dalawang baryasyon sa pangalan ng isang wika batay sa sumusunod na dalawang diskusyon: (1) maaaring maging mahirap hanapin ang mga materyales lalo na sa panahon ng Internet, at (2) nakakalito o maaaring makahadlang sa pagpapaunlad at pagpapalawak ng Wikang Pambansa.

5.1 Unang Suliranin: Kahirapan sa Paghahanap ng mga Materyales o Impormasyon

Ang unang problema kapag mayroong higit sa dalawang pangalan ang isang wika ay maaaring maging mahirap hanapin ang mga materyales o impormasyon ng Wikang Pambansa, lalo na sa kasalukuyang panahon ng Internet. Naghahanap ang mga mag-aaral ng mga materyal sa pag-aaral. Naghahanap din ang mga Pilipinong nakatira sa bansang Hapon o mga tumutulong sa kanila ng impormasyon tungkol sa kanilang visa, buhay, at edukasyon sa Wikang Pambansa. Kailangan nilang ilagay ang dalawa—*Firipin-go* at *Firipino-go*—sa search engine upang hindi mapapalampas ang mahalagang materyales o impormasyon. Sa katunayan, maraming akda at opisyal na pahayagan ang naglalagay ng higit sa dalawang pangalan upang pataasin pa ang antas ng kadalian sa paghahanap, gaya ng tinalakay sa Seksyon 4. Pinapababa ng pagkakaroon ng higit sa dalawang pangalan ang kadalian at kabilisan ng paghahanap ng materyales at hinahadlangan ang interes ng mga tao sa Wikang Pambansa, gaya ng tinalakay ni

Haspelmath (2017) sa kaniyang labing-isang prinsipyo sa pangalan ng mga wika. Sa madaling salita, dapat natatangi at iisa lamang ang pangalan ng wika para sa kadalian sa paghahanap at pagtanda ng mga nagsasalita at mag-aaral. Sa puntong ito, hindi mainam ang pagkakaroon ng dalawang pangalan ng Wikang Pambansa.

5.2 Ikalawang Suliranin: Nakakalito o Maaaring Makahadlang sa Pagpapaunlad at Pagpapalawak ng Wikang Pambansa

Ang ikalawang problema kapag mayroong higit sa dalawang pangalan ay ang kalituhang maaari nitong idulot at makahadlang sa pagpapaunlad at pagpapalawak ng Wikang Pambansa. Ang hindi matatag na pangalan at pagiging mahirap hanapin ay maaaring humantong sa kakulangan o mababang kamalayan ng mga tao sa Wikang Pambansa, at ito ay maaaring maging balakid sa pagpapaunlad at pagpapalawak ng Wikang Pambansa na umuunlad pa bilang wikang pambansa/opisyal ng Pilipinas.

Halimbawa, sina Rakgogo at Van Huyssteen (2018) ang isa sa mga naunang nag-aral sa pagtalakay ng kahinaan ng pagkakaroon ng dalawang pangalan ng isang wika sa bansang Timog Afrika. Matapos nilang imbestigahan ang kalituhan sa pangalan ng wikang *Sepedi* o *Sesotho sa Leboa* (o maaaring tawagin *Northern Sotho* sa Ingles) sa iba't ibang impormatibong dokumento at mga nagsasalita sa nasabing bansa, tinukoy nila na "[…] ang paggamit ng dalawang magkaibang pangalan ng wika ay nagdudulot nga ng kalituhan sa hindi lamang sa nagsasalita

ng wikang *Nothern Sotho* kundi mambabatas […]" (p. 80, akin ang salin).

Tinalakay naman ni Coluzzi (2017) ang kahalagahan ng mga banyagang mag-aaral sa isang wika lalo na sa pananaw ng pagpaplanong pangwika sa wikang Malay, isang makapangyarihang wika sa bansang Malaysia na isang multilingguwal na bansa. Sinabi niya na "ang interes na ipinakita ng mga dayuhan sa isang wika ay tanda ng prestihiyo na tinatamasa nito, at makakatulong pa ito na patibayin ang katayuan ng wika sa bansa kung saan ito sinasalita" (p. 27-28, akin ang salin). Ang pagkakaroon ng maraming pangalan ng wika ay maaaring magdulot ng kalituhan sa mga dayuhan na gustong matuto ng Wikang Pambansa, na posibleng humadlang sa pagpapatibay ng katayuan nito.

Bago pa at nasa proseso pa lang ng pagpapaunlad ang wikang Filipino kumpara sa mga wikang pambansa ng ibang mga bansa. Ang Filipino ay inaasahan na uunlad pa "sa pamamagitan ng patuloy na paggamit araw-araw ng mga mamamayan" (Almario, 2014, p. 70). Dahil sa katotohanan na mas kilala ang katawagang Tagalog kaysa sa Filipino, ang pagkakaroon ng dalawang pangalan ay maaaring maging balakid sa pagpapaunlad at pagpapalawak ng Wikang Pambansa.

6 Ang mga Mungkahi

Sa mga suliraning nabanggit sa Seksyon 5, at batay sa mga naunang prinsipyo at kombensyon sa pangalan ng wika na tinalakay sa Seksyon 2, iminumungkahi ko ang mga sumusunod: (1) Kailangang pag-isahin ang pangalan ng Wikang Pambansa ng Pilipinas sa *Firipin-go*, (2) dapat ay magkaroon pa ng kamalayan ang mga Hapones at sila ay maging mas

maingat sa kanilang paggamit ng terminolohiya kapag binanggit nila ang Wikang Pambansa, at (3) dapat palaganapin ang wastong pangalan ng Wikang Pambansa hindi lamang sa loob ng Pilipinas, kundi sa ibang mga bansa na rin.

Una, malinaw na ang paggamit ng iisang pangalan ng wika ay kapwa kapaki-pakinabang sa mismong Wikang Pambansa ng Pilipinas at sa mga Hapones. Maaari ring gamitin ang magkaibang anyo ng autoglottonym at mas natural at kombensyonal sa wikang Hapones ang <pangalan ng bansa/rehiyon + *-go*> para tukuyin ang isang wikang may opisyal na estado, gaya ng inihalimbawa sa Talahanayan 6. Hindi pamilyar ang mga karaniwang mamamayang Hapones sa katawagang *Firipino-go*.

Talahanayan 6. Ang mga Halimbawa ng mga Pangalan ng Wikang Kinakatawan ng Isang Bansa sa Wikang Hapones

Pangalan ng wika sa Hapones	**Pangalan ng wika sa Filipino/Ingles**	**Autoglottonym sa bawat wika**
Furansu-go	Wikang Pransya/French	*Français* [fʁɑ̃sɛ]
Supein-go	Wikang Espanyol/Spanish	*Español* [espaˈɲol]
Rosia-go	Wikang Rusyan/Russian	*русский язык* [ˈruskʲɨ̟ jɪˈzʲɨk]
Betonamu-go	Wikang Biyetnames /Vietnamese	*Tiếng Việt* [tiəŋ˧˥ viət̚˧˨ʔ]
Tai-go	Wikang Thai/Thai	*ภาษาไทย* [pʰāːsǎː tʰāi]

Dagdag pa rito, paulit-ulit ang *Firipino-go* (i.e. autoglottonym + wika) dahil pang-uri na ang morpemang *Firipino* 'Filipino' na may kahulugan na 'Filipino language' tapos nakakabit pa ang morpemang *-go* 'wika' sa wikang Hapones. Samakatuwid, iminumungkahi ko na *Firipin-go*

ang dapat gamitin bilang nag-iisang pangalan ng Wikang Pambansa sa wikang Hapones.

Ikalalawa, dapat mas maging maingat ang mga Hapones sa kanilang paggamit ng terminolohiya kapag binanggit nila ang Wikang Pambansa dahil natatangi sa wikang Hapones ang isyung ito. Walang iniulat na baryasyon sa pangalan ng Wikang Pambansa ng Pilipinas sa mga wika ng kalapit na mga bansa, i.e., ginagamit lang ang <pangalan ng bansa + wika> sa wikang Tsino at Koreano: 菲律宾语 (*fēilǜbīn-yǔ*), 菲语 (*fēi-yǔ*, pinaikli mula sa 菲律宾语), o 菲律宾话 (*fēilǜbīn-huà*) sa wikang Tsino habang 필리핀어 (*pillipin-eo*) sa wikang Koreano. Mula sa ponetiko o ponolohiyang perspektiba, kaunti lang ang pagkakaiba ng *Firipin-go* at *Firipino-go* sa pasalitang komunikasyon dahil nagtatapos ang dalawa sa pailong na tunog. Ngunit, nagkakaiba ang mga ito sa pasulat na teksto, lalo na sa mga letrang Hapones at ito ay maaaring maging kahadlangan sa paghahanap lalo na sa Internet. Sa kasakuluyang lipunan ng Hapon, kung saan tumataas ang presensiya ng wikang Filipino, hindi mainam ang pagbaba ng kadalian sa paghahanap. Kung gayon, kanais-nais na ang mga Hapones na gumagamit ng wikang Filipino, tulad ng mga mananaliksik, edukador, at sinumang may kaugnayan sa wikang Filipino ay makipag-ugnayan sa isa't isa upang talakayin ang kinabukasan ng wikang Filipino kasama ang mga dalubwika sa Pilipinas.

Ikatlo, dapat palakasin ang pagpapakilala bilang polisiyang pangwika kung ano ang wastong pangalan ng Wikang Pambansa ng Pilipinas hindi lamang sa loob ng Pilipinas, kundi sa mga ibang bansa. Tulad ng nabanggit sa Seksyon 2.1, ang patuloy na pagbabago ng pangalan ng wika ay maaaring makaapekto sa katawagan sa wika sa ibang mga bansa. Nakita rin natin ito sa kaso ng wikang Malay o wikang

Indonesia na ang pagbabago o pagkalito sa pangalan ng wika ay maaaring makaimpluwensiya sa kung paano ito tawagin sa ibang wika, lalo na sa wikang Hapones. Batay sa mga ito, mahalaga ang matibay na pangalan ng Wikang Pambansa sa loob at labas ng bansa at ang matatag at malinaw na pangalan ay makakaambag sa pagpapaunlad at pagpapalawak pa ng Wikang Pambansa. Bukod pa rito, makakatulong din ang pagkakaroon ng iisang katawagan upang ipaalam na Filipino na ang wikang pambansa ng Pilipinas dahil, gaya ng nabanggit sa Seksyon 4.3, Tagalog pa rin ang mas madalas na ginagamit.

7 Kongklusyon

Tinalakay ng artikulong ito ang sumusunod bilang tugon sa katanungang pananaliksik. Una, naipakita na mayroong dalawang baryasyon sa pangalan ng Wikang Pambansa ng Pilipinas sa wikang Hapones: *Firipin-go* at *Firipino-go* batay sa pagsusuri sa mga teksbuk at diksiyonaryong inilimbag sa bansang Hapon at mga opisyal na pahayagan ng mga pambansa at lokal na pamahalaan. Pangalawa, problemado ang pagkakaroon ng higit sa dalawang pangalan sa isang wika mula sa perspektiba ng kadalian sa pag-akses sa materyales at impormasyon tungkol sa Wikang Pambansa at pagpapaunlad at pagpapalawak nito. Kaya iminumungkahi ko na dapat gamitin ang *Firipin-go* bilang nag-iisang pangalan ng Wikang Pambansa sa wikang Hapones dahil ito ang mas natural na kombensyon ng pangalan ng wika sa wikang Hapones kung saan <pangalan ng bansa/rehiyon + *-go*> ang mas pinipili para tukuyin ang wikang may opisyal na estado. Pangatlo, kailangan nating bigyang-pansin ang paggamit ng pangalan

ng Wikang Pambansa sa wikang Hapones. Sa paglalakbay ng Wikang Pambansa sa kaibayuhang-dagat at iba't ibang bansa ay nadala rin nito ang kalituhan sa pangalan nito. Lalo pang pinaigting ang kalituhan na dulot ng kumbensyon ng wikang Hapones sa pagpapangalan ng mga wika, lalo na ng mga wikang pambansa. Kinakailangang maipabatid ang saloobin ng mga kinauukulan at may kapakinabangan sa Pilipinas, gaya ng Komisyon sa Wikang Filipino (KWF), mga dalubwika sa mga wika sa Pilipinas, at mga Hapones na may kaugnayan sa Pilipinas, lalo na ang mga Pilipinolohista sa Hapon patungkol sa sitwasyon ng wikang pambansa sa ibang bansa upang mapag-isa ang pagtukoy sa Wikang Pambansa ng Pilipinas. Magiging mabuti rin kung ang gobyerno ng Republika ng Pilipinas ang siya mismong magpapabatid sa gobyerno ng Hapon ukol sa problemang pangwika na ito. Mahalaga ito dahil ang interes at pag-aaral mula sa dayuhang perspektiba ay makakaambag din sa pagpapatibay, pagpapayabong, at pagpapalago ng Wikang Pambansa.

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Pasasalamat

Ang artikulong ito ay nakabatay sa aking mga presentasyon sa *Gengogaku Fesu* 2023 'Linguistics Festival 2023' na ginanap online noong ika-30 ng Enero, 2023 at 15th Philippine Linguistics Congress na ginanap sa Unibersidad ng Pilipinas, Diliman noong ika-24 ng Agosto, 2023. Maraming salamat po sa mga nagtanong at nagkomento. Nais ko ring pasalamatan sina Ariane Borlongan, Ronel Laranjo, at Masanao Oue sa kanilang mga nakakatulong na mungkahi at payo sa unang borador ng artikulong ito, at si Hazuki Iijima tungkol sa kalagayan ng wikang Malay, sina Kyung Min Bae at Sang Min Choi tungkol sa katawagan ng Wikang Pambansa ng Pilipinas sa wikang Koreano, at si Di Wu tungkol sa katawagan sa Mandarin.

Evaluating Consistency Across Beginner and Intermediate Filipino Textbooks for a Model of Word Level Identification

Florinda Amparo A. Palma Gil

Abstract

The Filipino language is taught as a second or foreign language globally, including in Asia, North America, and Europe. In Japan, Filipino classes began in 1989, but the persistent challenge remains the lack of adequate teaching and learning materials (Laranjo, 2020). Furthermore, the author observed inconsistencies in terminology—Filipino, Tagalog, or Tagalog/Filipino—across existing reference materials. Lower-level materials are variably labeled as "basic," "beginner," or "elementary," while higher-level materials are broadly categorized as "intermediate." This study aims (1) to evaluate the consistency of the language referenced

in beginner and intermediate Filipino textbooks and (2) to identify differences in vocabulary between these levels, contributing to a model of word level identification, to address the following questions: (a) Are Filipino language teachers and students worldwide engaging with the same target language? (b) Are "beginner" and "intermediate" learners across countries exposed to the same vocabulary at these levels?

The study compared and analyzed the glossaries of eight textbooks/reference materials used for teaching Filipino globally. Three textbooks were designated for "beginner" level, two for "intermediate," and the remaining three for "beginner to intermediate" levels. Despite variations in how the target language is named, at least five textbooks refer to the national language of the Philippines, Filipino, as their target language. For the "beginner" level, 4,889 unique words were extracted, with 894 common across six textbooks. At the "intermediate" level, 5,767 unique words were identified, with 674 common across five textbooks. Notably, "intermediate" textbooks contained less number of nouns and verbs, but the themes under these categories were found to be more compared to those at the "beginner" level.

Keywords: Filipino language, word level identification, vocabulary list comparison, beginner and intermediate textbooks, textbook analysis

1 Introduction

The 1987 Constitution designates Filipino as the national language of the Philippines (Article XVI, Section 6), with a mandate for it to evolve by incorporating elements from Philippine and other languages. However, it took five decades for Filipino to be formally named and defined. In 1937, Tagalog was declared the basis of the national language, which led to confusion over whether Tagalog itself was the national language or merely a foundation. In 1959, the language was renamed Pilipino to distinguish it from Tagalog, and in 1987, it was renamed again as Filipino, now incorporating elements from other Philippine languages, as well as from Spanish and English (Almario & Kilates, 2014).

Even before discussions about the national language began, Tagalog held prestige as the language of the capital and was more widely used in literature and newspapers than any other Philippine language (Almario & Kilates, 2014; Tupas, 2014). During the long period when Tagalog was the sole basis for the national language, the language spread and expanded through mass media and education, despite opposition (Constantino, 2012). Then, with the revision of the constitution in 1987, which declared that the national language would no longer be based on a single language but would instead draw from all Philippine languages as well as Spanish and English, changes were made to aid its modernization and intellectualization. One of the first changes was in the alphabet: eight letters (C, F, J, Ñ, Q, V, X, Z) were added to the old *abakada* to better accommodate sounds from other Philippine languages, as well as from Spanish and English, enriching the vocabulary (Almario & Kilates, 2014). However, even to this day, many continue to refer to Tagalog as the national language, despite

the fact that the national language taught in schools is officially called Filipino.

1.1 On Filipino Language Teaching and Learning

Filipino language teaching and learning is not confined to the Philippines but has expanded its reach to countries worldwide, including the United States of America, Canada, United Kingdom, Russia, France, Germany, China, Japan, South Korea, Brunei, Malaysia, and Australia (Laranjo, 2020; Ramos & Mabanglo, 2012; Takahata, 2022; Yap, 2012). While the manner of Filipino language instruction varies across these countries, it is noteworthy that classes are offered at all educational levels—primary, secondary, and tertiary (Takahata, 2022; Yap, 2012). Diverse learners engage with the language, with heritage language learners predominating in the USA and various European nations, foreign language learners prevalent in East Asia, and a mix of heritage, foreign, and second language learners in Southeast Asia, where the Philippines is situated (Laranjo, 2020; Yap, 2012).

The rising Filipino diaspora has heightened the interest in learning Philippine language and culture, particularly evident in the USA, where Filipino ranks as the second most commonly spoken Asian language and the sixth most spoken non-English language, according to the 1990 United States Census (Ramos & Mabanglo, 2012). Despite this growing demand, there remains a deficiency in learning materials, compounded by inconsistent nomenclature—Filipino, Tagalog, or Tagalog/Filipino—in available reference materials. Additionally, a proficiency assessment tool for those seeking it is conspicuously absent. Furthermore, while textbooks for higher levels are uniformly labeled as

"intermediate," those for lower levels lack consistent designations, being referred to as "basic," "beginner," or "elementary."

This study is grounded on the premise that the existence of a reliable assessment tool would facilitate a seamless transition for students moving to another country or transitioning to a different online course. Such a tool would offer a transparent means for individuals to communicate their current language proficiency, aiding schools in accurately assessing incoming students. Conversely, the absence of a reliable assessment tool could lead to students inadvertently retaking a course or enrolling in a class beyond their proficiency level, hindering the smooth progression of their learning (Byrnes, 1990; Laranjo & Palma Gil, 2023).

This study aims (1) to evaluate the consistency of the language referenced in beginner and intermediate Filipino textbooks and (2) to identify differences in vocabulary between these levels, contributing to a model of word level identification, to address the following questions: (a) Are Filipino language teachers and students worldwide engaging with the same target language? (b) Are "beginner" and "intermediate" learners across countries exposed to the same vocabulary at these levels? The goal is to leverage the study's findings in developing a model for a user-friendly word level checker. This tool, once created, can serve as a valuable reference for the construction of teaching materials and proficiency assessment tools in Filipino language education.

1.2 On Foreign Language Teaching and Learning Guidelines and Related Studies

Globally, the American Council on Teaching Foreign Language (ACTFL) Language Proficiency Guidelines in the USA and the

Common European Framework of Reference for Languages (CEFR) by the Council of Europe wield significant influence on language proficiency tests and standardization. These guidelines categorize language textbooks, assessment tools, and materials based on proficiency levels—ACTFL Proficiency Guidelines for materials in the USA and CEFR Levels for materials in European countries.

The ACTFL Language Proficiency Guidelines, which were developed in 1986, delineate proficiency into five major levels across each skill (speaking, writing, listening, reading): Distinguished, Superior, Advanced, Intermediate, and Novice. The major levels Advanced, Intermediate, and Novice are further divided into High, Mid, and Low sublevels. This framework defines the continuum of proficiency, ranging from highly articulate, well-educated language users to those with minimal or no functional ability (ACTFL, 2023). Conversely, the CEFR which was introduced in 2001, consists of six proficiency levels—A1, A2, B1, B2, C1, and C2, organized into three overarching categories: Basic User, Independent User, and Proficient User. These can be further subdivided based on local context needs, and the levels are characterized through 'can-do' descriptors (Council of Europe, 2023). CEFR ratings assigned on ACTFL assessments is presented in Section 6.1 (ACTFL, 2022).

The ACTFL and CEFR have a profound impact, extending their influence on languages across continents. An illustrative case is The JF Standard for Japanese-Language Education, developed by the Japan Foundation, which aligns with CEFR. This standard not only draws inspiration from CEFR but also incorporates its Common Reference Levels and Can-do Descriptors (Japan Foundation, 2010). Similarly,

the Japanese Language Proficiency Test (JLPT) recently announced the addition of a CEFR Level indication to JLPT score reports starting from the 2025 JLPT results (The Japan Foundation & Japan Educational Exchanges and Services, 2023).

CEFR's influence also extends to the development of CEFR-J, an innovative framework for English language teaching in Japan. Distinguishing features of CEFR-J include (a) more refined sub-levels (Pre-A1, A1.1-1.3, A2.1-2.2, B1.1-1.2, B2.1-2.2) with newly created and scaled descriptors, (b) the preparation of grammar and vocabulary corresponding to each CEFR-J level, (c) a detailed analysis of text features representing CEFR-J levels, and (d) the creation of tasks and tests tailored to each CEFR-J descriptor (Tono, 2017 in Tono, 2019, pp. 5–6).

However, before ACTFL and CEFR there was the Interagency Language Roundtable (ILR) Language Proficiency Skill Level Descriptions and Scales, which was developed in the 1950s and formalized in the 1960s by the U.S. government to standardize language proficiency assessment. The ILR scale provides a framework for assessing functional language skills, with levels ranging from 0 (no proficiency) to 5 (native or bilingual proficiency) describing language skills in listening, reading, speaking, and writing. It evolved from earlier military and diplomatic language training programs and has since become a key tool for government agencies and language professionals (Interagency Language Roundtable, n.d.). The ILR scale focuses on real-world communicative ability and has influenced other proficiency scales, such as the CEFR and ACTFL. In fact, ACTFL was derived from the ILR scale.

In the realm of Filipino language education, the absence of proficiency tests and the lack of comprehensive teaching guidelines are notable. The author's investigation revealed only two available resources. The first is the Frequency Count of Filipino by McFarland (1989), designed as a foundational wordlist for language instruction in elementary schools and as a guide for textbook preparation based on written corpus from the period in which Pilipino was the dominant term for the national language (p. 5). The second is the Language Learning Framework for Teachers of Filipino (LLFTF) and its accompanying curriculum guide, tailored for Filipino heritage learners in the USA. Developed in 2012 by the Council of Teachers of Southeast Asian Languages (COTSEAL), this framework spans four teaching levels, equivalent to four years of instruction: Level 1 (101 and 102), Level 2 (201 and 202), Level 3 (301 and 302), and Level 4 (401 and 402). The LLFTF outlines objectives for each of the four macro language skills (writing, reading, listening, and speaking) at every level. Within each level, nine specific learning objectives are identified: Novice, Novice Mid, Novice High, Intermediate, Intermediate Low, High Intermediate (Intermediate High), Skilled (Advanced), Skilled Low (Advanced Low), and Skilled High (Advanced High). Notably, Level 1 caters to 0-Novice to Mid-levels, Level 2 to Novice High to Intermediate Mid-levels, Level 3 to Intermediate Mid to Intermediate High levels, and Level 4 to Intermediate High to Advanced levels (Ramos & Mabanglo, 2012). Given its development in the USA, it is reasonable to infer that the terminology employed aligns with the standards set by the ACTFL.

1.3 On Wordlists, Word Level Checker and Related Studies

The CEFR-J wordlist underwent meticulous development through a comprehensive frequency analysis of English textbooks employed in primary and secondary schools across neighboring Asian countries/regions, such as China, Korea, and Taiwan. The process involved scrutinizing the learning objectives outlined in the national curricula of the target textbooks and approximating the CEFR levels associated with each. Utilizing these textbooks, a CEFR-level textbook corpora, spanning Pre-A1 to B2 Level, was established. To analyze the CEFR-level textbook corpora, the texts underwent initial tagging for parts of speech (POS) using TreeTagger from the study of Schmidt (1994, as mentioned in Tono, 2019). Subsequently, frequency lists of lemmas with POS were generated for each textbook published in every country/region, as well as for each CEFR level. The identification of Pre-A1 words was achieved by selecting only those that appeared in textbooks classified at the Pre-A1 level across all three regions. Following the same methodology, A1-level words through B2-level words were systematically extracted. Finally, the word levels were aligned with the English Vocabulary Profile (https://www.englishprofile.org/wordlists) (Tono, 2019, p. 7). The methodology carried out in comparing the vocabulary lists from eight Filipino language textbooks was roughly based on the development of the CEFR-J wordlist.

The English Vocabulary Profile (EVP) is a reference tool developed as part of the larger English Profile Project aimed at aligning English language teaching and learning materials with the Common European Framework of Reference for Languages (CEFR). It provides detailed

information about which English words and phrases are typically known and used at each CEFR level (from A1 to C2). The EVP is especially useful for educators, learners, and test designers as it helps to identify the vocabulary learners are expected to know at different proficiency stages. It is part of the Cambridge English Corpus and is available as an online tool for vocabulary profiling (English Profile, n.d.).

The EVP classifies vocabulary by considering not just the words themselves, but also different meanings, forms, and uses of those words at various CEFR levels. For instance, the word "run" might be recognized as a verb at the beginner level (A1), while more complex uses of "run" as a noun or idiomatic expressions like "run into" might appear at more advanced levels. According to EVP, there is a significant progression from A1/A2 (basic user) to B1/B2 (independent user), both in the range of vocabulary and the types of words learners are expected to know and use. B level vocabulary builds on A level vocabulary in terms of complexity, depth, and the ability to handle more abstract concepts. A1/A2 learners acquire the basics, which provide a foundation for more sophisticated usage at B1/B2. B1/B2 learners are expected to extend their knowledge by adding more abstract, technical, and context-specific vocabulary, but they still rely on the basic structures and vocabulary learned at A levels. For example, an A2 learner might say: "I don't like this job. It's boring." A B2 learner would expand on that by saying: "I find this job incredibly monotonous and uninspiring. I'm looking for something more challenging and fulfilling." In this way, B level vocabulary continues to build upon A-level knowledge, moving from basic to more complex language as learners progress (English Profile, n.d.). In many other languages, there are CEFR-aligned wordlists and

language profiling tools that work similarly to EVP, often developed by national language institutions or educational bodies that focus on language learning. Many of these tools, like EVP, aim to standardize vocabulary acquisition and language assessment, ensuring that learners progress systematically across CEFR levels. However, for the Filipino language, while there are few resources and corpora that can provide a foundation for analyzing vocabulary, syntax, and usage in various contexts, currently, there is no exact equivalent of the EVP for the Filipino language.

The New Word Level Checker (NWLC), developed by Mizumoto et al. (2021) and accessible at https://nwlc.pythonanywhere.com/, is an innovative online tool designed specifically for vocabulary profiling in Japanese English as a Foreign Language (EFL) learning environments. This application analyzes English texts submitted by users, generating a coverage profile based on built-in and user-selected word lists. NWLC boasts five reputable, research-based word lists as of September 2021: SEWK-J, New JACET8000, SVL12000, the New General Service List (NGSL), and Common European Framework of Reference for Languages (CEFR-J). Consequently, NWLC enables the alignment of learners' actual vocabulary knowledge with the texts under analysis (Mizumoto et al., 2021, pp. 30–31).

The article introducing NWLC provides clarity on the definition of lexical units, including the rules governing word counting, such as case sensitivity, contractions, abbreviations with periods, hyphenated words, and compounds. The study introduces the concept of "flemmatization (family + lemma)" in word counting, where the base form of a headword is counted as one with its inflected forms. For example, the base

headword *study* (noun) is counted as one with its inflected form like *studied* (verb). Another example is when the headword *study* (noun) is counted as one with the headword *study* (verb). Additionally, the study distinguishes "lemmatization," where the headword is counted separately from its inflected forms. For example, the headword *study* (noun) is counted as a separate headword from *study* (verb). "Lemmatization" is employed when part-of-speech (POS) information is required. The CEFR-J Wordlist adopts lemma counting since the original CEFR word lists are also lemmatized. Thus, in the CEFR wordlists, the verb "study" is classified as A1 and the noun "study" is A2 (Mizumoto et al., 2021, p. 33).

In the process of counting "common beginner words" and "common intermediate" across the eight Filipino textbooks, a hybrid approach of "flemmatization" and "lemmatization" was adopted for a simpler and easier way of counting. For example, the headword, ***bu****kas* 'tomorrow' (adverb) is counted as one with headword *buk****a****s* 'to open' (verb). However, the base headword *kain* 'to eat' (verb root) is counted as a separate word from *kumain* 'to eat' (verb *-um-* infinitive). In general, the rules created for data cleaning and defining a "word" for the purpose of counting "common" words was patterned after the rules established for NWLC.

The 1989 Frequency Count of Filipino by McFarland (1989), one of the scant two available resources providing teaching guidelines in Filipino language education, remains relevant despite its age. Despite being dated, its rules and insightful treatment of lemmas and headwords in Filipino still hold significant applicability to contemporary challenges in Filipino orthography. Noteworthy examples include addressing variations in

spelling or pronunciation for words with foreign and Filipinized forms, such as *professor* and *propesor*, or the multiple spellings like *puwede*, *pwede*, and *puede*. McFarland (1989, pp. 16–22) also delves into the intricate verbal system of Filipino, elucidating aspects such as inflection for aspect, which involves a root word and its myriad possible affixes. More importantly, McFarland's study includes three definitions of what a "word" is. (1) a word is any sequence of letters separated from other sequences by one or more spaces; (2) a word is any given sequence of letters which can be set off by spaces, and which can be understood to occur repeatedly within a text (this talks about frequency of a word); and (3) different sequences are grouped together on the basis that they share basic meaning and differ only with regard to tense, number, case, etc. as how words are presented in dictionaries, e.g. sequence and sequences are understood to be different forms of the same word (McFarland, 1989, p. 9). Thus, this material also served as a guide in creating the rules for counting the "common" words across the textbooks investigated.

2 Methodology

In this study, eight of the few available textbooks/reference materials used in teaching Filipino language in universities inside and outside the Philippines were compared and analyzed. Five of the textbooks are being used in the USA (mostly as supplementary materials), two of them are being used in Japan and one is being used in a university in South Korea and in a university in the Philippines. Since the textbooks are used in different countries, their target learners vary as well. Table 1 presents a summary of the background of the textbooks investigated in this study.

Table 1. Textbooks Investigated in This Study

Textbook	Country-dominant	Target Learners as indicated in the textbooks[1]	Level or targeted proficiency as described in the textbooks
BOOK #1: *Tagalog for Beginners* (Barrios, 2014)	USA	different types of learners, e.g. heritage learners and second-language learners	beginner
BOOK #2: *Conversational Tagalog* (Ramos, 1985)	USA	foreign/second language learners	S1+ (or higher) by the end of the session
BOOK #3: *Panimulang Pag-aaral ng Wikang Filipino/Introductory Study of the Filipino Language* (Peregrino et al., 2016)[2]	South Korea & Philippines[3]	Koreans	basic; introductory
BOOK #4: *Intermediate Tagalog* (Ramos & Goulet, 1982)	USA	Americans and Filipino-Americans	intermediate

Textbook	Country-dominant	Target Learners as indicated in the textbooks	Level or targeted proficiency as described in the textbooks
BOOK #5: *Intermediate Tagalog* (Barrios, 2015)	USA	different types of learners, e.g. heritage learners and second-language learners	intermediate
BOOK #6: フィリピン語 (*Firipin-go* 'Filipino') (Oue & Yoshizawa, 2017)	Japan	Japanese[4]	beginner to intermediate
BOOK #7: 大学のフィリピノ語 (*Daigaku no Firpino-go* 'Komprehensibong Tekstbuk ng Filipino/University Filipino' 'A Comprehensive Filipino Textbook') (Yamashita et al., 2018)	Japan	Japanese[5]	beginner to intermediate or advanced

Textbook	Country-dominant	Target Learners as indicated in the textbooks	Level or targeted proficiency as described in the textbooks
BOOK #8: *Elementary Tagalog* (Domigpe & Domingo, 2014)	USA	heritage and non-heritage language learners	intermediate low-level to intermediate mid-level after completion

BOOK #2 aims for learners to reach speaking proficiency at the S1+ (Elementary Proficiency, Plus) level, which is assumed to be based on the ILR scale given the book's 1985 publication date, around the time when ACTFL was being developed from the ILR scale. At this level, speakers can handle basic conversations but may struggle with social conventions and language control. Although no solid reference was

[1]The definitions of terms like second language can vary depending on the context and academic framework. Some sources follow a strict geographical distinction: **second language learning** is used when the language is learned in a setting where it is spoken, while **foreign language learning** is used for languages learned outside that context (Saville-Troike & Barto, 2016). Other sources, particularly in psycholinguistics or applied linguistics, may use **second language** to refer to any language learned after the first, without emphasizing the environment (Ellis, 1997; Krashen, 1982).

[2]This textbook was only published as an interactive book application during the data gathering and cleaning. However, just recently, this textbook has been published as part of a series of physical textbooks on Filipino in South Korea.

[3]The textbook does not explicitly state its use in the Philippines; however, an interview with one of its authors revealed that it is also utilized for teaching Filipino to Korean students at the University of the Philippines, Diliman.

[4]The textbook does not explicitly state that its target users are Japanese, but it is only available in Japan, and both the script and language used are in Japanese.

[5]The textbook does not explicitly state that its target users are Japanese, but it is only available in Japan, and both the script and language used are in Japanese.

found regarding the correspondence between the ILR scale and the ACTFL or CEFR scales, a different approach was taken by comparing the expected functional and linguistic skills described in the textbook to the other textbooks. Upon close comparison of the learning objectives of the textbooks, it was found that the expected skills in BOOK #2 closely align with those in BOOK #3, both emphasizing foundational language abilities such as simple conversations, directions, and grammar for beginner learners. These texts likely correspond to the A1-A2 levels of the CEFR, focusing on practical, everyday interactions. For more on this comparison, see Section 6.2.

BOOK #3 which used the term "elementary" in its title, actually mentioned that the book covers a whole academic year and that the students are expected to achieve intermediate low level to intermediate mid-level after completion of the book. To achieve the two objectives of this study: (1) to evaluate the consistency of the language referenced in beginner and intermediate Filipino textbooks and (2) to identify differences in vocabulary between these levels, contributing to a model of word level identification, to address the following questions: (a) Are Filipino language teachers and students worldwide engaging with the same target language? (b) Are "beginner" and "intermediate" learners across countries exposed to the same vocabulary at these levels?, two approaches were employed. First, to identify the language referenced in the textbooks, a comparative content analysis was conducted across eight textbooks. This analysis examined how the target language is defined and presented throughout each textbook, with a focus on the introduction, terminology, grammatical frameworks, and pedagogical goals. Second, to differentiate vocabulary between beginner and intermediate levels,

the words from the glossaries or vocabulary lists in the textbooks were counted and compared using a simple R program to identify the "common beginner words" and "common intermediate words." These words were further categorized by parts of speech and themes for additional differentiation.

In reference to the level or targeted proficiency indicated in each textbook, three textbooks were designated for "beginner" level [BOOK #1, BOOK #2, BOOK #3], two for "intermediate," [BOOK #4, BOOK #5], and the remaining three for "beginner to intermediate" levels [BOOK #6, BOOK #7, BOOK #8]. To compare and analyze the eight textbooks and the frequency list, this study underwent four phases: [Phase 1: Data Gathering], [Phase 2: Data Cleaning], [Phase 3: Counting and Defining the Common Words] and [Phase 4: Comparing the Common Words]. Figure 1 shows an overview of the procedure applied in this study.

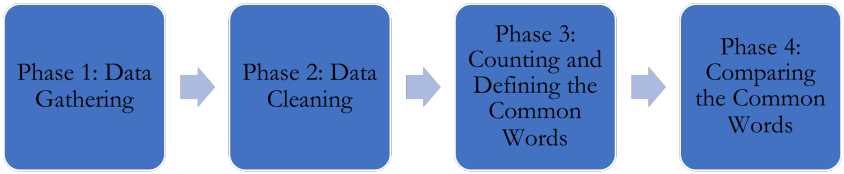

Figure 1. Procedure Done in this Study

In [Phase 1: Data Gathering], two types of data were gathered. These data were investigated to accomplish the two objectives and address the two questions of this study. The first set of data (named Data 1) is the "description/content" of each textbook which include its foreword, introduction, sample of its terminology, grammatical frameworks and pedagogical goals. The second set of data (named Data 2) is the "glossary or vocabulary list" of each textbook. The "description/content" were in-

vestigated to confirm whether the teachers and learners across countries are dealing with the same target language as presented in each textbook, while the "glossary or vocabulary list" were analyzed to describe and differentiate the "beginner" vocabulary from "intermediate" vocabulary.

Phases 2, 3 and 4 were done only for Data 2. In [Phase 2: Data Cleaning], rules for cleaning the data and rules for identifying and counting the common words among the textbooks and the frequency list were created and then these rules were implemented in a simple R program. Cleaning the data to identify and count the common words mean defining what a "word" is. The rules set in the development of the New Word Level Checker (https://nwlc.pythonanywhere.com/) for English Vocabulary by Mizumoto et al. (2021) in their study and the issues mentioned by McFarland (1989) regarding lemmas and headwords in Filipino were used as guides in creating the rules for cleaning the data of this study. As mentioned above, this study applied both "flemmatization" and "lemmatization." As an example of "flemmatization," the headword, ***bu**kas* 'tomorrow' (adverb) is counted as one with headword *buk**a**s* 'to open' (verb). However, the base headword *kain* 'to eat' (verb root) is counted as a separate word from *kumain* 'to eat' (verb *-um-* infinitive).

Some of the vocabulary lists contain borrowed words from English, such as *beer* for *mag-beer* and *text* for *i-text* and *mag-text*. However, to further simplify the counting process and due to their very low frequency, these words were eliminated from the list.

Table 2 shows the rules created for cleaning the data and for counting the common words.

Table 2. Rules Created to Clean the Data and Count Common Words

	Rules on cleaning data 2	Rules on counting common words
1.	Separate sentences and phrases into words.	*Common Words in "Beginner" Textbooks*: "A word is considered common **if it appears in at least 3 books out of the 6 textbooks** indicated for counting 'beginner' words." [BOOK #1, BOOK #2, BOOK #3, BOOK #6, BOOK #7, BOOK #8].
2.	Separate words with slash.	
3.	Accept and retain words with hyphen and apostrophe.	
4.	Eliminate English words.	
5.	Do not include punctuation marks and special characters; Delete punctuation marks like period, question mark, exclamation mark, parentheses and special characters like tilde and asterisks.	
6.	Change vowels with accents marks to vowels without accent marks.	*Common Words in "Intermediate" Textbooks*: "A word is considered common **if it appears in at least 3 books out of the 5 textbooks** indicated for counting 'intermediate' words."[BOOK #4, BOOK #5, BOOK #6, BOOK #7, BOOK #8]
7.	Change capital letters to lower case letters.	
8.	Make each word unique (no duplicates).	

After the data were cleaned and counted, in [Phase 3: Counting and Defining the Common Words], the common words that were found were counted. Words are called "common" among the six textbooks indicated for counting "beginner" words when they appear in three out of the six textbooks [BOOK #1, BOOK #2, BOOK #3, BOOK #6, BOOK #7, BOOK #8]. These six textbooks will be referred to as "beginner set." Words are called "common" among the five textbooks indicated for counting "intermediate" words when they appear in three out of the five textbooks [BOOK #4, BOOK #5, BOOK #6, BOOK

#7, BOOK #8]. These five textbooks will be referred to as "intermediate set."

Finally, in [Phase 4: Comparing the Common Words], the common words from the textbooks that contained "beginner" vocabulary were compared to textbooks which contain "intermediate" vocabulary in two ways. First, the number of overlapping "beginner" words within the "intermediate" was counted, and then the overlapping and non-overlapping words were identified. Second, the words at both levels were categorized by part of speech and themes to further distinguish them.

3 Findings and Analysis

3.1 Identifying the Language Referenced in Available Filipino Textbooks

The first objective of this study is to evaluate the consistency of the language referenced in beginner and intermediate Filipino textbooks to answer the question: (a) Are Filipino language teachers and students worldwide engaging with the same target language? To address this objective and question, a comparative content analysis was conducted across eight textbooks. This analysis examined how the target language is defined and presented throughout each textbook, with a focus on the introduction, terminology, grammatical frameworks, and pedagogical goals.

Table 3 shows the target language indicated and described in each textbook. The eight textbooks refer to the target language in various names: Tagalog, Pilipino, Filipino.

Table 3. Target Language as Indicated in Each Textbook

Textbook	Target Language as indicated and described in each textbook
BOOK #1: *Tagalog for Beginners* (Barrios, 2014)	Tagalog (the basis of the national language of the Philippines, Filipino)
BOOK #2: *Conversational Tagalog* (Ramos, 1985)	Tagalog
BOOK #3: *Panimulang Pag-aaral ng Wikang Filipino/Introductory Study of the Filipino Language* (Peregrino et al., 2016)	Filipino, pambansang wika (national language)
BOOK #4: *Intermediate Tagalog* (Ramos & Goulet, 1982)	Tagalog
BOOK #5: *Intermediate Tagalog* (Barrios, 2015)	Tagalog/Filipino (the national language of the Philippines)
BOOK #6: フィリピン語 (*Firipin-go* 'Filipino') (Oue & Yoshizawa, 2017)	Filipino (national language/official language; Tagalog)
BOOK #7: 大学のフィリピノ語 (*Daigaku no Firpino-go* 'Komprehensibong Tekstbuk ng Filipino/University Filipino' 'A Comprehensive Filipino Textbook') (Yamashita et al., 2018)	Filipino (the national language and one of the official languages)
BOOK #8: *Elementary Tagalog* (Domigpe & Domingo, 2014)	Tagalog (the basis of the national language of the Philippines, Filipino)

Two of the textbooks, BOOK #1 and BOOK #5, written by the same author (Barrios, 2014; Barrios, 2015), use "Tagalog" in their titles but describe their target language as the national language of the Philippines,

referring to it as Filipino or Pilipino on the back cover and in the introduction. In BOOK #1, the author mentions that Filipino is based on Tagalog, while in BOOK #5, the same author clarifies that Filipino is not solely based on Tagalog (Barrios, 2015). BOOK #1 also includes an appendix titled "*Why Filipino and not Pilipino? – A Brief History of Making a Language the National Language*," indicating the book acknowledges the distinctions between Tagalog, Pilipino, and Filipino (Barrios, 2014).

BOOK #2 and BOOK #4 use "Tagalog" in their titles and refer to the language as Tagalog in the content and structure. These textbooks, published in 1982 and 1985 before Filipino was officially recognized as the national language—are the oldest among the set. BOOK #2 states its purpose is to help students practice idiomatic Tagalog conversation (Ramos, 1985). BOOK #4 highlights *Tagalog Reference Grammar* by Paul Schacter and Fe T. Otanes, as well as *Tagalog Structures* by one of the authors herself of BOOK #4, as its primary sources for grammar explanation (Ramos & Goulet, 1982).

BOOK #3, developed by the Departamento ng Filipino at Panitikan ng Pilipinas (DFPP)/Department of Filipino and Philippine Literature of the University of the Philippines, Diliman (UPD), and Busan University of Foreign Studies (BUFS), focuses on Filipino as its target language. The book provides a brief explanation of Filipino, the national language recognized in the Philippine constitution, and emphasizes its importance, along with what aspects of the Philippines can be learned through it. Lesson 1 features a short reading text on the composition of Filipino, derived from various Philippine and foreign

languages, followed by a list of Filipino words with foreign influences (Peregrino et al., 2016).

BOOK #6 and BOOK #7 are used at universities in Japan offering Philippine Studies programs. Both textbooks use "Filipino" in their titles and identify Filipino as the target language. While both provide a brief introduction to the relationship between the Philippines and Japan, BOOK #7 also includes a history of the national language, recognizing Filipino as its official name (Yamashita et al., 2018). BOOK #6, on the other hand, states that Tagalog is still more commonly used in the Philippines and argues that, aside from the alphabet, there are no significant differences between Filipino and Tagalog today. The author refers to the two terms as "nicknames" for the same language but notes that Filipino will be used in the book, as it is the term recognized by the Philippine government for the language based on Tagalog and enriched by various Philippine languages (Oue & Yoshizawa, 2017).

Finally, BOOK #8, which also uses "Tagalog" in its title, explicitly identifies Tagalog as its target language. The book provides a two-page description of Tagalog, stating it is the basis of the national language, Filipino. It explains the linguistic similarities between Tagalog and Filipino, noting they share the same syntax, morphology, and phonology, and describes the differences between the Pilipino alphabet, used by Tagalog, and the Filipino alphabet, used by Filipino. It also mentions that the term "Tagalog" is more commonly used by foreign-language learners and even by Filipinos themselves (Domigpe & Domingo, 2014).

In summary, despite the varied terminology used across the eight textbooks, at least five of them clearly refer to the national language of the Philippines, which is Filipino as their target language, while the

other textbooks recognize Tagalog as the basis of Filipino, and thus share the same structure and vocabulary. With this, it can be inferred that in the countries where these textbooks are utilized, teachers are teaching the same target language, and learners are being exposed to, or are currently studying, the same language.

3.2 Differentiating Vocabulary between "Beginner" and "Intermediate" Levels

The next tables fulfill the second objective of this study which is to identify differences in vocabulary between these levels, contributing to a model of word level identification to answer the question: (b) are "beginner" and "intermediate" learners across countries exposed to the same vocabulary at these levels? by determining the "common beginner words" and the "common intermediate words."

Table 4 shows the total number of words from the six textbooks which were tagged to be containing "beginner" vocabulary or the "beginner set." Except for the BOOK #3, the total number words from each textbook exceeds 1000. BOOK #7 and BOOK #8 which claim to be for "beginner" to "intermediate" level learning, have almost twice the number of the other textbooks. The total number of unique words found in the six books is 4,889 words.

Table 4. Total Number of Words Gathered from the Glossary or Vocabulary List of "Beginner" Textbooks

TEXTBOOK	TOTAL NUMBER OF WORDS
BOOK #1: Tagalog for Beginners (Barrios, 2014)	1,149
BOOK #2: Conversational Tagalog (Ramos, 1985)	1,105
BOOK #3: Panimulang Pag-aaral ng Wikang Filipino/Introductory Study of the Filipino Language (Peregrino et al., 2016)	455
BOOK #6: フィリピン語 (*Firipin-go* 'Filipino') (Oue & Yoshizawa, 2017)	1,991
BOOK #7: 大学のフィリピノ語 (*Daigaku no Firpino-go* 'Komprehensibong Tekstbuk ng Filipino/University Filipino' 'A Comprehensive Filipino Textbook') (Yamashita et al., 2018)	2,321
BOOK #8: Elementary Tagalog (Domigpe & Domingo, 2014)	1,369
TOTAL NUMBER OF WORDS COMPARED	4,889
COMMON WORDS (appeared in 3 out of 6 textbooks)	894 (18.3%)

Upon comparing the words in the "beginner set," a total of 894 words were identified as "common." This represents only 18.3% of the overall

word count (4,889) derived from all six textbooks. In essence, when assessing the "common" words in relation to the total vocabulary of each textbook, as outlined in Table 5, the "common" words constitute approximately 32% to 71% of the respective total word counts. Even in the case of BOOK #3, which has the lowest total word count, it only encompasses 71% of the "common beginner words." This suggests that "beginner" learners share only about 51% of their knowledge concerning "beginner" vocabulary, implying that the remainder of the vocabulary they encounter may have already surpassed the "beginner" level.

Table 5 shows the percentage of "common beginner" words in each textbook.

Table 5. Percentage of "Common Beginner" Words in each Textbook of the "Beginner Set"

TEXTBOOK	COMMON WORDS VS. TOTAL NUMBER OF WORDS
BOOK #1: Tagalog for Beginners (Barrios, 2014)	547 of 1,149 (48%)
BOOK #2: Conversational Tagalog (Ramos, 1985)	627 of 1,105 (57%)
BOOK #3: Panimulang Pag-aaral ng Wikang Filipino/Introductory Study of the Filipino Language (Peregrino et al., 2016)	321 of 455 (71%)
BOOK #6: フィリピン語 (*Firipin-go* 'Filipino') (Oue & Yoshizawa, 2017)	697 of 1,991 (35%)

TEXTBOOK	COMMON WORDS VS. TOTAL NUMBER OF WORDS
BOOK #7: 大学のフィリピノ語 (*Daigaku no Firpino-go* 'Komprehensibong Tekstbuk ng Filipino/University Filipino' 'A Comprehensive Filipino Textbook') (Yamashita et al., 2018)	747 of 2,321 (32%)
BOOK #8: Elementary Tagalog (Domigpe & Domingo, 2014)	668 of 1,369 (49%)

While this observation aligns with the expected content of BOOKS #6, #7 and #8, which claim to cover "beginner" to "intermediate" level material, it raises questions about the significance and priority assigned to the non-"common beginner" vocabulary in other textbooks. Furthermore, it prompts an exploration into whether the inclusion of certain words and expressions in these textbooks was aligned with the needs of the target students during the design process.

Out of the 894 common words, 702 words appeared in all six textbooks. Table 6 shows the list of some of these words randomly chosen from the main list.

Table 6. Some of the Words which Appeared in All Six "Beginner Set" Textbooks

abril 'April'	***daan*** 'road,' 'path'	***kapatid*** 'sibling'	***malinis*** 'clean'	***dagat*** 'sea'
agosto 'August'	***dalawa*** 'two'	***kasi*** 'because'	***malungkot*** 'sad'	***huwebes*** 'Thursday'
ako 'I'	***dilaw*** 'yellow'	***ko*** 'my,' 'mine'	***mangga*** 'mango'	***lola*** 'grandmother'

anim 'six'	***disyembre*** 'December'	***kotse*** 'car'	***manok*** 'chicken'	***mamaya*** 'later'
apat 'four'	***dito*** 'here'	***kulay*** 'color'	***mantika*** 'cooking oil'	***marami*** 'a lot'
araw 'sun,' 'day'	***doktor*** 'doctor'	***kuya*** 'older brother'	***marso*** 'March'	***martes*** 'Tuesday'
araw-araw 'everyday'	***enero*** 'January'	***libro*** 'book'	***masarap*** 'delicious'	***mataas*** 'tall,' 'elevated'
aso 'dog'	***ng*** 'object focus marker,' 'linker'	***lima*** 'five'	***matamis*** 'sweet'	***mesa*** 'table'
asukal 'sugar'	***gusto*** 'pseudo-verb like or want'	***linggo*** 'week,' 'Sunday'	***mayo*** 'May'	***mga*** 'plural marker'
asul 'blue'	***hindi*** 'no,' 'not'	***lolo*** 'grandfather'	***mo*** 'you,' 'your'	***mura*** 'cheap'

Like the examination of the "beginner set" textbooks, the vocabulary lists of the five "intermediate set" textbooks were also subjected to comparison, and the count of "common" words was determined. Results indicate a total of 5,767 unique words across the five "intermediate set" textbooks, with 674 identified as "common." This represents only 11.7% of the overall word count. When assessing the "common" words relative to the total vocabulary of each textbook, as illustrated in Table 7, the "common" words constitute approximately 19% to 41% of the respective total word counts. BOOK #4, with the lowest total word count, only encompasses 19% of the "common intermediate words." This implies that "intermediate" learners share approximately 28% of their knowledge concerning "intermediate" vocabulary, suggesting that the remaining

vocabulary could already be beyond the "intermediate" level, or a big portion contains beginner words from BOOK #6, #7 and #8 which BOOK #4 and #5 did not include any more in their glossaries. Words like *aso* 'dog' and *pusa* 'cat' or *banyo* 'toilet' and *sala* 'living room'' can all be found in the "common beginner" wordlist especially in BOOK #1, #2, #6, #7 and #8, but are not found in the "common intermediate" wordlist under BOOK #4 and #5. Like with the case of "common beginner" words, it can be assumed that the words and expressions included in these textbooks were chosen with the needs of the target students in mind during the development process which may not always align with the vocabulary needs of learners using other textbooks.

Table 7 shows the total number of unique words found in all five "intermediate set" textbooks and as well as the percentage of "common intermediate" words in each textbook.

Table 7. Total Number of Words and Percentage of "Common" and "Intermediate" Words in each "Intermediate" Textbook

TEXTBOOK	TOTAL NUMBER OF WORDS
BOOK #4: *Intermediate Tagalog* (Ramos & Goulet, 1982)	149 of 795 (19%)
BOOK #5: *Intermediate Tagalog* (Barrios, 2015)	438 of 1,888 (23%)
BOOK #6: フィリピン語 (*Firipin-go* 'Filipino') (Oue & Yoshizawa, 2017)	560 of 1,991 (28%)

TEXTBOOK	TOTAL NUMBER OF WORDS
BOOK #7: 大学のフィリピノ語 (*Daigaku no Firpino-go* 'Komprehensibong Tekstbuk ng Filipino/University Filipino' 'A Comprehensive Filipino Textbook') (Yamashita et al., 2018)	615 of 2,321 (27%)
BOOK #8: *Elementary Tagalog* (Domigpe & Domingo, 2014)	556 of 1,369 (41%)
TOTAL NUMBER OF WORDS COMPARED	5,767
COMMON WORDS (appeared in 3 out of 5 textbooks)	674 (11.7%)

From all five textbooks, only 38 words appeared in all "intermediate set" textbooks. It was found that all these words are also found in the list of "common beginner" words. All 38 words are shown in Table 8.

Table 8. Words which Appeared in All Five "Intermediate Set" Textbooks

ang 'subject marker'	***buwan*** 'moon,' 'month'	***lolo*** 'grandfather'	***pamangkin*** 'nephew, niece'
araw 'sun,' 'day'	***na*** 'two,' 'already'	***at*** 'and'	***panahon*** 'time/period,' 'weather'
ate 'older sister'	***hindi*** 'no,' 'not'	***luma*** 'old'	***panganay*** 'eldest'
ayaw 'pseudo-verb dislike'	***ho*** 'politeness marker' 'like po'	***luya*** 'ginger'	***pinsan*** 'cousin'

bagoong 'fermented fish or shrimp'	***kita*** personal pronoun ***ko*** + ***ka***	***gulay*** 'vegetable'	***puti*** 'white'
bagyo 'typhoon'	***mabuti*** 'good'	***mahaba*** 'long'	***mo*** 'you,' 'your'
ng 'object focus marker,' 'linker'	***loob*** 'inside'	***mataas*** 'tall,' 'elevated'	***tag-ulan*** 'rainy season'
baon 'money' 'food brought from home'	***kulay*** 'color'	***matamis*** 'sweet'	***taon*** 'year'
bawang 'garlic'	***sa*** 'place marker,' 'future time marker'	***may*** 'existential verb have'	
bunso 'youngest sibling'	***lola*** 'grandmother'	***ako*** 'I'	

Next, the number of "common beginner" words (894 words) was compared with the "common intermediate" words (674 words). A total of 564 words were found to overlap or are common. This suggests that the "intermediate" vocabulary is not entirely distinct from the "beginner" vocabulary, instead, the "intermediate" vocabulary can be assumed to build on the "beginner" vocabulary with the 564 overlapping words as what was also pointed by the EVP or English Vocabulary Profile about the nature and relationship of A Level vocabulary and B Level vocabulary (English Profile, n.d.). Figure 2 presents a diagram, a continuum, distinguishing the "common beginner" vocabulary from the "common intermediate" vocabulary based on the analysis of the 564 overlapping words. The overlapping words are analyzed as transitional beginner to intermediate words with easy to difficult difficulty level. On the other hand, non-overlapping common beginner words are the essential beginner words that must be learned at the beginner level

and the non-overlapping common intermediate words are the essential intermediate words that are crucial to be learned during the intermediate level.

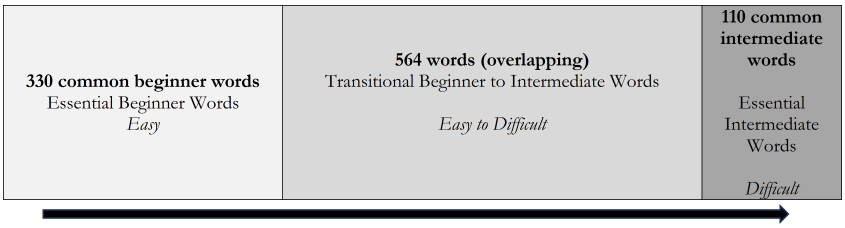

Figure 2. Simple Description of Beginner and Intermediate Vocabulary

It was not yet done in this study; however, a clearer description and distinction of the beginner and intermediate words can be done by analyzing the nature of the words found in each column of Figure 2. This is suggested as the next step of the study.

Finally, to further distinguish "common beginner" words from "common intermediate" words, the words were categorized by parts of speech and by themes. Here, the textbooks were consulted on how they tagged the words that can be categorized under two or more parts of speech and then these tags were counted. For example, if a beginner word is tagged as *noun* in all six textbooks, then it was counted as a *noun*. However, if a beginner word is tagged as *noun* in three textbooks and is tagged as *verb* in the other three textbooks then it was counted as a *noun*. Table 9 shows the categorization of the "common beginner" words.

Table 9. Categorization of "Common Beginner" Words

NOUNS (476)		ADJECTIVES (101)	VERBS (161)	OTHERS (156)
Plants; Food (Fruits, Vegetables, Condiments, other Ingredients for cooking); Filipino food names (proper names); Drinks; Utensils and Tablewares; Family members; Occupation; People terms; Parts of the body; Illness; Medicine; Clothes; Accessories	Days of the week; Months; Numbers; Shapes; Colors; School materials; Things inside the house; Parts of the house; Places in the community; Transportation; Directions; Names of places (Proper names); Landscapes; Weather; Disaster; Location /position	Temperature; Size (people, things); Weight; Height; Speed; Distance; Condition of things; Attitude /personality; Feelings (basic); Feelings (*nakaka-*); Taste; Comparison (*kasing-*)	Everyday activities (*mag-*, *ma-*, *-um-*); Cooking (*-in*, *i-*); *Magpa-*; Direction (*-um-*)	Markers (*ang*, *mga*, *ng*, *sa*); Linkers; Clitics; *Po*, *Ho*; Time (indefinite); Time affixes (*ala*, *alas*); Pronouns; Conjunctions (*pero*, *dahil*, *kasi*); Question words (+*ba*); Expressions /greetings; Pseudo-verbs; *Oo*, *Hindi*; Existential verbs

Table 10 presents the categorization of "common intermediate" words. As with the findings, there are more "common beginner" words (894)

than "common intermediate" words (674), so Table 9 "common beginner" words have more words under the columns noun, verbs and others. So, it can be said that distinguishing between "common beginner" and "common intermediate" words based solely on their part of speech is challenging. A closer look at the themes within each part of speech in both tables also reveals minimal differences between the two wordlists. The key distinction is that the "common intermediate" wordlist (Table 10) contains more themes within the verb category. For instance, Table 9 shows that the "common beginner" wordlist includes verbs with the affix *um* related to direction, such as *kumanan* 'turn right,' but lacks verbs with the affix *pa*, like *papunta* 'going' which can be found in the "common intermediate" wordlist. Another example would be about the verbs related to cooking. Both Table 9 and Table 10 include verbs related to cooking, such as *tadtarin* 'to chop or to mince.' However, only the "common intermediate" wordlist features *dikdikin* 'to crush or to pulverize,' suggesting that learners encounter the concept of chopping earlier than pulverizing. Additionally, there are fewer nouns in the "common intermediate" wordlist, but it does include abstract nouns related to beliefs, which are absent from the "common beginner" list. Examples of these are *malas* 'bad luck' and *suwerte* 'good luck.'

Table 10. Categorization of "Common Intermediate" Words

NOUNS (343)		ADJECTIVES (105)	VERBS (107)	OTHERS (119)
Animals; Plants; Food (Fruits, Vegetables, Condiments, other Ingredients for cooking); Filipino food names (proper names); Drinks; Utensils and Tablewares; Family members; Occupation; People terms; Parts of the body; Illness; Medicine Clothes; Accessories;	Days of the week; Months; Numbers; Shapes; Colors; School materials; Things inside the house; Parts of the house; Places in the community; Transportation; Directions; Names of places (Proper names); Landscapes; Weather; Disasters; Media;	Temperature; Size (people, things); Weight; Height; Speed; Distance; Condition of things; Attitude /personality; Personality (*-in*); Feelings (basic); Feelings (*nakaka-*); Taste; Texture (touch, food/eating); Comparison (*mas*); *Napaka-*	Everyday activities (*mag-*, *ma-*, *-um*); Cooking (*-in*, *i-*, *-an*); Destroy (*-in*); Illness (*ma-*); Direction (*-um-*, *pa-*); Focus (*-in*, *-an*)	Markers (*ang*, *mga*, *ng*, *sa*); Linkers; Clitics; *Po*, *Ho*; Time (indefinite); Time affixes (*ala*, *alas*); Pronouns; Conjunctions (*pero*, *dahil*, *kasi*); Question words (+*ba*); Expressions /greetings; Pseudo-verbs; *Oo*, *Hindi*; Existential verbs

NOUNS (343)		ADJECTIVES (105)	VERBS (107)	OTHERS (119)
Special Occasions; Beliefs; Cultural activities	Location /position			

4 Conclusion and Recommendation

Despite the growing interest in learning the Philippine language and culture, there is still a notable lack of learning materials, particularly when compared to other languages. Additionally, there is no available proficiency assessment tool for learners who want or need it. This study sought to evaluate the consistency across beginner and intermediate Filipino textbooks to contribute in creating a model of Filipino word level identification by confirming the language referenced in Filipino textbooks used globally and differentiating vocabulary between "beginner" and "intermediate" levels. By comparing eight textbooks, it was revealed that despite variations in terminology, the majority of textbooks target the national language of the Philippines, Filipino. The findings suggest that learners across various countries are being exposed to the same language, though textbooks employ different names for it.

For the second objective, the glossaries or vocabulary lists of the eight textbooks were analyzed. From the six beginner-level labeled textbooks, 4,889 unique words were extracted, of which 894 words were common, representing 18.3% of the total number of words. The "common" words accounted for between 32% and 71% of the total vocabulary in each

textbook, suggesting that "beginner" learners share only about 51% of their knowledge concerning "beginner" vocabulary and the remaining vocabulary they are learning already exceeds their level. Similarly, the five intermediate-level labeled textbooks contained 5,767 unique words, with 674 common words identified. These "common intermediate" words represented between 19% and 41% of the total vocabulary in each textbook. This implies that "intermediate" learners share approximately 28% of their knowledge concerning "intermediate" vocabulary with the remaining words likely extending beyond the intermediate level or beginner words which were not mentioned anymore in two of the exclusively intermediate textbooks. These findings indicate that each textbook incorporates specific vocabulary tailored to its target learners, which may not always align with the vocabulary needs of learners using other textbooks.

The comparison between the categorization of "common beginner" and "common intermediate" words by parts of speech and themes further revealed that the intermediate textbooks cover a broader range of themes, particularly related to nouns and verbs. Notably, the nouns in the intermediate vocabulary list include abstract nouns not found in the beginner vocabulary.

Although the number of "common" beginner and intermediate words found is low, the vocabulary comparison showed significant overlap between beginner and intermediate levels, with intermediate vocabulary incorporating a substantial portion of beginner words. This overlap suggests a continuum in language acquisition, where intermediate learners continue building on foundational vocabulary while expanding into more complex thematic areas.

From this study, the author was able to create "common beginner" and "common intermediate" wordlists, which can serve as foundational resources for future developments. The ultimate goal of the study is to use these findings to develop a user-friendly word-level checker tool. Such a tool could become a valuable reference for creating teaching materials and proficiency assessments in Filipino language education.

The compilation of data for Data 2 which were analyzed, and wordlists can be viewed in this folder: https://shorturl.at/m9cwO

Future textbook development should aim for clearer distinctions between vocabulary levels to enhance learner progression. Additionally, standardizing terminology across textbooks would ensure consistency in language instruction globally. It is recommended that educators and material developers create resources that address the distinct needs of both beginner and intermediate learners, emphasizing the gradual introduction of more abstract and complex concepts at higher proficiency levels. Furthermore, the creation of a word-level checker tool or Filipino vocabulary profile could help educators and learners assess proficiency more accurately and tailor instruction to individual learning paths.

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6 Appendices

6.1 CEFR Ratings Assigned to ACTFL Assessments (ACTFL, 2022)

Rating on ACTFL Assessment	**Corresponding CEFR Rating Receptive Skills – Reading and Listening**	**Corresponding CEFR Rating Productive Skills – Speaking and Writing**
Distinguished	C2	
Superior	C1.1	C2
Advanced High	C1.1	C1
Advanced Mid	B2	B2.2

Rating on ACTFL Assessment	Corresponding CEFR Rating Receptive Skills – Reading and Listening	Corresponding CEFR Rating Productive Skills – Speaking and Writing
Advanced Low	B1.2	B2.1
Intermediate High	B1.1	B1.2
Intermediate Mid	A2	B1.1
Intermediate Low	A1.2	A2
Novice High	A1.1	A1
Novice Mid	0	0
Novice Low	0	0
0	0	0

6.2 Comparison of the Expected Learning Objectives of BOOK #2 and BOOK #3

Summary of Expected Attainments from BOOK #2: Conversational Tagalog (Ramos, 1985, pp. xiv–xv)	**English Translation of a Part of the Introduction of BOOK #3: Panimulang Pag-aaral ng Wikang Filipino/Introductory Study of the Filipino Language (Peregrino et al., 2016)**
Functional Skills: Students will be able to handle simple conversations in common social contexts, including: 1. Greetings and leave-takings. 2. Introducing themselves and others. 3. Expressing likes and dislikes. 4. Telling time and giving dates using Spanish and Tagalog. 5. Expressing simple discomforts. 6. Narrating daily activities and future plans. 7. Asking for and giving directions. 8. Ordering food and meals. **Linguistic Skills:** *Structure*: Students will gain proficiency in basic grammatical structures, including:	This book aims to help Koreans learn the basic knowledge of the Filipino language and use it in the context of both Korean and Filipino culture. The book presents activities that will teach students to speak, write, and understand the Filipino language for meaningful communication. The activities designed in this book will help students: 1. Understand the background and nature of the Filipino language; 2. Pronounce Filipino words correctly while speaking and reading texts; 3. Use simple and basic sentence structures of the Filipino language in conversation and writing; 4. Understand and correctly use basic words or vocabulary of the Filipino language; and

Summary of Expected Attainments from BOOK #2: Conversational Tagalog (Ramos, 1985, pp. xiv–xv)	**English Translation of a Part of the Introduction of BOOK #3: Panimulang Pag-aaral ng Wikang Filipino/Introductory Study of the Filipino Language (Peregrino et al., 2016)**
1. Basic statements and question patterns (affirmative and negative). 2. Use of question words. 3. Basic actor and object focus verbs. 4. Pseudo-verbs and existentials. 5. Pronouns, demonstratives, and markers for phrases. 6. Simple modifications and adverbial phrases. 7. Sentence connectors and linkers. **Vocabulary Skills:** Students will acquire common nouns for objects, people, shapes, colors, and food, along with basic actor and object focus verbs. **Pronunciation and Comprehension Skills:** They will approximate key sounds like glottal stops, nasal sounds, and initial stops. They will also understand and answer simple questions about daily routines and family topics.	5. Express simple thoughts and feelings in daily activities, situations, and interactions using the Filipino language. The book will cover and include the following linguistic activities and exercises: 1. Background and nature of the Filipino language 2. Sounds and alphabet of the Filipino language 3. Common expressions for greetings and introductions 4. Basic descriptions of people, things, and places 5. Basic knowledge of recognizing numbers and correct counting, telling time, and basic knowledge of purchasing and using money 6. Primary pronouns 7. Basic family relationships 8. Expressing likes and dislikes 9. Basic knowledge of location and simple verbs

Summary of Expected Attainments from BOOK #2: Conversational Tagalog (Ramos, 1985, pp. xiv–xv)	English Translation of a Part of the Introduction of BOOK #3: Panimulang Pag-aaral ng Wikang Filipino/Introductory Study of the Filipino Language (Peregrino et al., 2016)
This section focuses on practical conversational skills, emphasizing both linguistic and cultural fluency.	

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Using Taglish as the Language of Instruction: K-3 Teachers' Experiences in the New Normal

Norossalam K. Sindatok

Abstract

MTB-MLE involves the implementation of local languages as the language of instruction (LOI) in kindergarten to grade three, along with the official languages, which are Filipino and English, being introduced as the LOI after grade three. However, in most schools where diverse native languages are used by the learners, a lingua franca is seen as the alternative LOI rather than the learners' mother tongue (Ponce & Lucas, 2021). Along this line, this phenomenological study aimed to describe the experiences of K-3 teachers who use Taglish as an LOI in the new normal. Also, the current study specifically intended to analyze the advantages and disadvantages of using Taglish as well as problems and challenges encountered by K-3 teachers during online

classes. The respondents of the study were composed of three K-3 teachers who were teaching MAPEH and RS subjects at a private institution in Cotabato City in the academic year 2021–2022. Open-ended interview questions were utilized to collect the data, which were analyzed using thematic analysis. The findings showed that teacher-participants confirmed the positive results of using Taglish as an LOI during online class discussions. In addition, it revealed that learners find it easy to express themselves whenever they are allowed to use Taglish. Moreover, teacher-participants also encountered challenges, such as difficulty in translating word-by-word terminologies. Finally, this study further suggests a need to investigate related studies in facilitating Taglish as LOI without jeopardizing the idea behind MTB-MLE policy, which is the use of local languages as LOI.

Keywords: Taglish, language of instruction, K-3, teachers' experiences

1 Introduction

The Philippine government approved the use of the learners' native language as a medium of instruction long before the changes in the new normal education happened (Cabansag, 2016). However, a long-standing problem has been obtaining more information on the present situation of educators teaching content subjects in their learners' mother tongue. Recent studies have reported that during the early years of

Mother Tongue-Based Multilingual Education (MTB-MLE) implementation, there were teachers who had certain negative attitudes about the policy that influenced their teaching techniques (Abrea et al., 2020; Mahboob & Cruz, 2013; Parba, 2018). In addition, teachers perceived that English, not the mother tongue of the students, should be taught as a subject in school. Furthermore, there are schools that do not adhere to using learners' mother tongue. Instead, teachers tend to use a lingua franca (i.e., Tagalog and English) to facilitate pupils' learning (Ponce & Lucas, 2021). Thus, looking deeply at teachers' experiences in the implementation of this program must be taken into consideration.

MTB-MLE is generally viewed as an effective strategy that mandates the use of native languages as a medium of instruction for a better understanding of learners (Benson, 2000; Cummins, 2000; Dutcher, 1997; Perez, 2019; Thomas & Collier, 2002; Walter & Dekker, 2011). Luistro (2013) stresses that MTB-MLE makes it easier for learners to understand their lessons because they are exposed to their home language. In the Philippines, mother tongue languages are used in teaching content areas beginning in kindergarten and continuing through grades one to three. As the learners progress to grades four to six, Filipino and English languages are gradually introduced to them until these languages may be used as the predominant modes of teaching in high school (Nolasco, 2012). Certainly, this entails the significant role of teachers in facilitating K-3 learners' understanding of content subjects through the use of learners' mother tongues as a vehicle for successful learning.

Most studies conducted in the past surveyed the attitudes and perceptions of teachers and students towards MTB-MLE. In the study of Abrea et al. (2020), teachers strongly believed that the use of native

language in grades one to three does not provide the presumed benefits to the learners. For them, the native language should be taught as a topic rather than as a medium of instruction for mathematics and science. Meanwhile, this notion of teachers' difficulties and challenges may be linked to their lack of comprehension of the program and transition since they are unfamiliar with how MTB-MLE is implemented in grades one to three. On the other hand, a different finding was shown in the study of Parba (2018), where it was found that most of the teachers demonstrated a positive outlook toward MTB-MLE. Accordingly, at first, the teachers were reluctant to use learners' mother tongue in teaching; however, their resistance and reluctance altered over time when they discovered the practical usefulness of teaching using their native language and how it aided pupils' language learning. Indeed, the implementation of MTB-MLE in K-3 classrooms had a favorable impact on the literacy and second language development of the learners (Perez, 2019).

However, it has been noted that in linguistically diverse contexts (LDCs) where various mother languages are spoken, a lingua franca is seen as the alternative language of instruction (LOI) in most schools, rather than the learners' mother tongue. Hence, it is important to describe K-3 teachers' experiences using Tagalog and English (Taglish) as LOI since there has been a dearth of studies being conducted through this lens. In addition, the rise of MTB-MLE adoption in an online classroom setting has received minimal attention in the literature so far. Furthermore, numerous studies in the past explored the teachers' experiences during face-to-face classes, with little to no studies available documenting the experiences of K-3 teachers who use Taglish in the

new normal education. Besides, every educational program considers teachers to be critical contributors (Abrea et al., 2020). It is, therefore, crucial to examine K-3 teachers' experiences concerning MTB-MLE implementation in the new normal to gain an understanding of their practices, beliefs, strategies, and whatnot. This clearly shows the need to look at how MTB-MLE can be implemented in the new normal education in the Philippine context.

Drawing on those previously mentioned arguments, this research intends to describe the experiences of K-3 teachers who use Taglish as LOI in the new normal. Also, the current study specifically aims to analyze the advantages and disadvantages of using Taglish as well as problems and challenges encountered by K-3 teachers during online classes to gain an understanding of how to successfully and effectively facilitate the teaching-learning process. There are private elementary schools that conduct online synchronous classes in Cotabato city; thus, it is interesting to examine the experiences of K-3 teachers in implementing MTB-MLE in the new normal. It is necessary for the educational system to adjust to the new normal of online classes because of the pandemic. As noted above, there have been numerous studies about the MTB-MLE implementation in a face-to-face setting. MTB-MLE is seen by some teachers as a barrier rather than a way to learn English concepts. Nevertheless, it has increased the learners' ability to express themselves and their self-esteem in a number of ways.

1.1 Teachers' Experiences in the New Normal

A great number of studies have investigated the perceptions of teachers and students on the implementation of MTB-MLE. Unfortunately,

there are limited data documenting K-3 teachers' experiences in using Taglish as the language of instruction in the new normal, referring to classes carried out fully online because of pandemic.

In the study of Ponce and Lucas (2021), they investigated multilingual learners' and parents' language attitudes towards the use of their mother tongue and the lingua franca, Tagalog. A total of five grade three multilingual learners, ages 8–9, and five parents who are also the learners' mothers participated in the interview. Moreover, the interviews were recorded between 20 to 35 minutes, in which the majority of the interviews were conducted in Tagalog, with some conducted in their native tongue. The responses were transcribed verbatim and critically analyzed using inductive thematic analysis. Furthermore, data showed that participants have a positive attitude toward their mother tongues and are proud of them because they see their local languages as an integral part of their culture. On the other hand, they also argued that in LDCs where various mother languages are spoken, a lingua franca has a strong preference as the LOI in most schools, rather than the learners' mother tongue. This finding poses a threat both in the local languages and mother tongue education itself as this was against the policy of MTB-MLE. Hence, further investigation on the advantages and disadvantages of using lingua franca as LOI should be documented.

On the other hand, Protacio (2022) employed hermeneutic phenomenology to identify, describe, and interpret teachers' lived experiences in teaching culturally-diverse students (CDSs) in English as LOI. He conducted a semi-structured interview with ten teachers at a state university in the province of Sultan Kudarat, Mindanao, Philippines, who volunteered to serve as participants in the study. Findings showed that

the teachers' lived experiences were characterized by five relevant themes such as (a) relevance of English to professional success, (b) desirable functions of English, (c) teachers' pedagogical competence, (d) substantial roles of code-switching, and (e) student's problems in English. Protacio (2022) concluded that teachers were adamant about the importance and function of English in today's rapidly changing world because English as LOI ensures professional success, as well as an excellent teaching and learning process and English proficiency. Thus, further empirical studies on English as LOI among learners representing different fields should be conducted to unravel their experiences.

Finally, Parba (2018) utilized an ethnographic study of research to investigate how primary teachers' linguistic beliefs and teaching methods have evolved after the MTB-MLE policy was established. He examined the difficulties that MTB-MLE teachers encountered in implementing the policy at the classroom level. In addition, the study included two kindergarten instructors, seven teachers in classes one to three, and the principal in a Cebuano-speaking public elementary school in Northern Mindanao. Moreover, the study revealed that during the early years of MTB-MLE implementation, the instructors at the certain public elementary school had certain negative attitudes and misunderstandings about MTB-MLE which influenced their teaching techniques. However, when instructors discovered the practical usefulness of teaching in Cebuano and how it aided students' language learning, their resistance, and reluctance altered over time. Interestingly, the MTB-MLE strategy gained approval from the majority of instructors. Furthermore, positive experiences and attitudes of instructors toward Cebuano as a language of teaching and literacy appeared to be the primary elements that

mediate their growing support for MTB-MLE. Conversely, the study showed that the absence of sufficient instructors' guides and students' textbooks is one of the daily issues that teachers and students confront. Hence, it is of utmost importance to conduct rich studies regarding the problems and challenges experienced by K-3 teachers throughout the implementation of MTB-MLE in linguistically diverse contexts.

1.2 Theoretical Underpinning

MTB-MLE is a government program and a salient part of the implementation of K to 12, which entails the use of learners' mother tongue and additional languages in the teaching-learning process from kindergarten to grade three. The idea behind its implementation is to allow learners to begin their education in the language they understand, which is their mother tongue. This framework is intended to address the low functional literacy rate in the Philippines, where language plays a significant factor in the learning of students. With the use of their first language, learners develop a strong foundation in learning that helps them be prepared for different learning competencies. Moreover, MTB-MLE also provides learners with the opportunity to facilitate literacy, prior knowledge, and cognitive development, higher order thinking skills, confidence building, and proficiency development for two or more languages, along with the following macro-skills such as listening, speaking, reading, writing, and viewing for both meaning and accuracy. Through this, learners who have established their first language can easily acquire their second language. It should be noted, however, that there are some schools that do not support this policy. They resorted to utilizing the lingua franca of both students and teachers, which is Tagalog. Thus, this

present study then sought to evaluate the experiences of K-3 teachers in teaching content subjects using Taglish as the LOI in the new normal.

1.3 The Present Study

In the present study, it is important to describe how K-3 teachers conduct online classes using Taglish as LOI in the new normal as it yields pedagogical implications in the light of MTB-MLE implementation. In most schools where diverse mother tongues are used by the learners, a lingua franca is seen as the alternative LOI rather than the learners' mother tongue. Therefore, the current study seeks to investigate experiences, problems, and challenges encountered by K-3 teachers who use Taglish in conducting online classes in the new normal. It aims to answer this research question: What are the experiences of K-3 teachers who use Taglish in conducting online classes in the new normal?

2 Methodology

2.1 Research Design

This qualitative study employed a phenomenological research design, which is often conducted to describe the interpretations of the participants' experiences. The method looks into people's ordinary lives while suspending the researchers' prior notions about the issue (Groenewald, 2004). It is befitting to be used in this study because this method examines lived events to learn more about how people interpret them (Groenewald, 2004). Moreover, the current study utilized this qualitative method to investigate lived experiences of the K-3 teachers, obtain

a better understanding of using Taglish as LOI, and broaden the researchers' perspective of MTB-MLE.

2.2 Participants

The participants were limited to three selected K-3 teachers teaching different subjects during online classes from a private institution in Cotabato City. According to the 2010 census, Cotabato City is home to 124 ethnolinguistic groups, with the majority of the population speaking Maguindanaon, Iranun, Cebuano, Tagalog, Hiligaynon, and Maranao (National Statistics Office [NSO], 2013). These Philippine languages are spoken in regular conversations, and Filipino and English are the city's official languages, as stipulated by the 1987 Philippine Constitution.

Using purposive sampling, the participants were chosen based on their availability and willingness to participate. The criteria applied in the selection process included being a teacher in kindergarten, Grade 1, Grade 2, or Grade 3. In the selection process, only three teachers teaching MAPEH and Religious Studies were able to participate because of conflicting schedules of some teachers or reluctance to share their insights.

2.3 Instruments

This study utilized semi-structured interviews in order to gain an understanding of the experiences, problems, and challenges encountered by the participants. It is appropriate to conduct an interview so that in-depth information about the lived experiences of participants can be collected. The researchers crafted open-ended interview guide questions

based on the related literature reviews cited in this study. In addition, the researchers deliberated the questions to be asked and submitted them to the adviser for corrections and suggestions to ensure the validity of the instrument. The first part asks for the demographic details of the participants, while the remaining questions prompt the participating teachers to share their experiences in using Taglish as LOI.

2.4 Data Collection and Analysis Procedures

A request letter was sent to the dean of the College of Education (CED) to ask for approval for carrying out the study in the targeted school. After getting approval from the dean, the researchers sent another letter of approval to the principal to formally ask permission to conduct an interview with the selected K-3 teachers. The researchers invited the selected teachers to participate in the study. Personal interviews were done, and the teacher-participants were informed that they could withdraw from the study during the process of collecting and analyzing the data. The participants signed the informed consent, stating that there is no risk in this study. Additionally, the rationale of the research was explained to them. Ethical considerations and safety and health protocols were followed.

Using thematic analysis, the responses were classified and categorized based on the features they shared in common. After that, the characteristics of the most common responses were determined, and lastly, the themes were selected. Thematic analysis steps include (a) familiarizing significant statements by immersing the researcher in and becoming familiar with a repetitive data reading, and formulating significant statements, (b) generating initial themes by coding salient features

and collating data relevant to each code, (c) clustering themes by collating codes into potential themes and gathering all data from the initial themes, (d) reviewing themes by ensuring that the coded themes reflect the full data set, and (e) defining recurrent themes, fine-tuning each theme and the story it tells, providing clear and well-defined relevant themes for reporting and presentation (Protacio, 2022).

3 Findings

Taglish as LOI is advantageous for both teachers and pupils. This category points out the positive results of using Taglish as an LOI in a synchronous online class. Based on the findings, teachers use Taglish as the LOI because it is effective in facilitating the learning and understanding of the students. Teachers revealed some positive effects regarding the use of Taglish in teaching subjects such as MAPEH and Religious Studies (RS). This is noticeable among the responses of the interviewed teachers when they were asked about their reasons for using Taglish during class discussions:

> **TM1:**[1] Since we have our mother tongue which is Tagalog, so nagagamit talaga namin ang Taglish in every subject na tinuturo namin sa kanila. Specifically, lalo na po sa MAPEH, kasi may other terms na ang hirap ipaintindi. Ang hirap para sa kanila i-understand ang mga different terminologies, so kailangan siya i-translate into Tagalog. [Since we have our mother tongue, which is Tagalog, we

[1] TM1 = MAPEH teacher 1; TM2 = MAPEH teacher 2; TRS3 = Religious Studies teacher 3

> can really use Taglish in every subject whenever we teach them. Especially in MAPEH, because there are other terms that are difficult to understand. It is difficult for them to understand the different terminologies, so they need to translate into Tagalog.]
>
> **TM2:** Yes, nagta-Taglish ako kasi usually ang mga pupils namin mas naiintindihan nila yung lesson kapag Taglish. [Yes, I speak Taglish because usually our pupils understand the lesson better when they speak Taglish.]

Based on their responses, it is very evident that the use of Taglish in teaching MAPEH helps the students understand the lesson and acquire the meaning of different words and terminologies that are quite unfamiliar to them. Similar responses were relayed by other teachers:

> **TM2:** Siguro kung sa pagtuturo, ginagamit ko 'yong Taglish. Hindi ako masyado nakaka-experience ng mga challenges, kasi as a teacher, nade-deliver ko siya nang maayos. Siyempre 'yon talaga 'yong pananalita natin. And sa outcomes naman, 'yong mga bata, mas naiintindihan ka talaga nila. [Maybe in teaching, I use Taglish. I don't experience many challenges, because as a teacher, I can deliver well (using Taglish). It is how we speak. And in terms of outcomes, those kids, they really understand you better (if you use Taglish).]
>
> **TRS3:** Often, kasi if I don't use Taglish, they might not understand. [Often, because if I don't use Taglish, they might not understand.]

These answers posit that using Taglish as an LOI is advantageous for both teachers and pupils because pupils are able to understand the lesson clearly when the teachers use Taglish. It appears that the use of Taglish in teaching MAPEH and RS results in having positive effects on the progress of learning and understanding of the learners.

Taglish as LOI helps pupils express themselves easily. Furthermore, this category elucidates one of the advantages of using Taglish that was pointed out by the teachers. In particular, language is a vital means of communication in everyday life, allowing for social interaction and acting as a primary means of self-expression. To communicate and connect fully with one another, thoughts, feelings, and ideas require a comprehensive language (Rabiah, 2012). The following are the responses given when interviewed teachers were questioned about their positive experiences and advantages of using Taglish as LOI:

> **TM1:** Sa teaching naman, in teaching a lower level using Taglish, maganda siya actually kasi ma-e-express lalo ng mga bata. Kasi it's hard for them pa to express words or sentences in English, so in that way, ma-express nila or mapalalim pa nila ang explanation 'pag gumagamit sila ng Taglish. [In teaching a lower level using Taglish, it is actually good for children because they can easily express themselves. It's hard for them to express words or sentences in English, so in that way, they can express or deepen the explanation when they use Taglish.]

Certainly, it becomes easier for the pupils to explain concepts using their own words because they are not restricted to using English alone.

Furthermore, another different perspective was given, as noted in the following:

> **TRS3:** Almost all of them got perfect scores without assistance. Mas comfortable kasi sila to share and learn dahil conducive ang class kahit online. Although yes, sometimes, conscious ang bata since they are not comfortable to deliver verbally. Minsan nosebleed pa. However, because of using Taglish, mas free sila to express their thoughts. [Almost all of them got perfect scores without assistance. They are more comfortable to share and learn because the class is conducive even online. Although yes, sometimes, the child is conscious since they are not comfortable to deliver verbally, and sometimes, it's nosebleeding. However, because of using Taglish, they are more free to express their thoughts.]

This says a lot about the strong dominance of using Taglish during online classes. Aside from self-expression, pupils are more comfortable and participative given that they got perfect scores in examinations. Indeed, most multilingual learners can express themselves more effectively in Taglish than using English language alone. Remarkably, it appears that better self-expression is one of the beneficial results of using Taglish as an LOI in a multilingual classroom in the new normal education.

Taglish as LOI is effective in teaching lower grades. In the Philippines, Taglish has become the de facto lingua franca and is widely regarded as the typical acceptable conversation style of speaking and

writing. In this category, it underlines the effective use of Taglish as LOI during synchronous online discussion. When the interviewed teachers were asked about the good impact of speaking Taglish in the class, they gave a positive response, as observed in their responses:

> **TM2:** Good experiences, 'yong interaction ng mga bata. Siyempre very active sila dahil alam nila 'yong mga dapat nilang isagot. Naiintindihan ka talaga nila then siyempre, hindi sila matatakot magsalita. 'yong confidence nila, although 'yong development 'yong speaking nila in English, na-e-express nila 'yong kanilang idea, 'yon naman 'yong pinakaimportante, kung ano man ang ginagamit nila na medium or dialect. [Good experiences, the interaction of the children. Of course they are very active because they know what they have to answer. They really understand you. Then of course, they are not afraid to speak. Their confidence is high because they express their ideas using the medium or dialect they use.]

This shows that pupils are more engaged and active when the teacher uses Taglish in the class discussion. Pupils tend to participate well and are not afraid to share their ideas in the class. In addition, they achieve higher self-confidence and self-esteem because they are allowed to use the language that they speak at home. This supports the idea behind the implementation of MTB-MLE where students are able to utilize their home languages in school during the first three years at the elementary level. Active participation of the learners results in effective implementation of using Taglish as an LOI.

Taglish as LOI is quite challenging and difficult. Noticeable among the responses of teachers are the challenges that come with using Taglish as LOI. When asked about their bad experiences of using Taglish as LOI, one of the interviewed teachers narrated her experience as expressed in her response:

> **TM1:** Hindi naman siya bad experiences. Ano lang 'yong medyo challenging experience lang siguro. For example, word by word ipa-translate sa'yo ng estudyante. Word-by-word translation kunyari, "Teacher, ano po ba yung ganito sa Tagalog? Ano po 'yong ganito?" … Iba-iba kasi ang mga estudyante, may mga ilang estudyante na fluent mag-English, may iba rin na fluent mag-Tagalog and mahirap mag-English. [This is not really a bad experience. But a rather challenging experience maybe. For example, the children will ask you to translate word by word. Word-by-word translation happened like for instance, "Teacher, what is this in Tagalog? What is this?" … Children are different, there are some who are fluent in English, there are also others who are fluent in Tagalog and have difficulty speaking English.]

Similarly, another teacher also confirmed that she also experienced some disadvantages in using Taglish as LOI. This can be seen in her answer:

> **TRS3:** Disadvantage will be, you need to unlock words for them to understand it.

These experiences are relatable because there are some English words that are difficult to translate into Tagalog. In fact, some words have no direct translation in Tagalog, and hence, this posits challenges and difficulties among the teachers. Moreover, one teacher revealed some of the challenges that she encountered in teaching the MAPEH subject, and it can be seen in this remark:

> **TM1:** It's quite challenging especially in the MAPEH subject because you need to express the whole you. In music, you must sing, in PE, you need to show different movements, and demonstrate various artistic skills in arts. Therefore, it is quite challenging and difficult.

This expressive statement shows that there are certain subjects that require extra effort in order to facilitate the learning of the pupils and eventually possess knowledge and skills of the concepts being taught.

Overall, despite celebrating diverse native languages in a multilingual classroom during online classes, it has been observed that utilizing Taglish as LOI has facilitated pupils' learning processes effectively. Learners have become more engaged, and they display a passionate interest when they are learning or being taught because they are able to speak the language they are most familiar with. They can easily comprehend the lessons and, therefore, share their thoughts and ideas in the class, which results in having fruitful and interactive discussions.

Based on the experiences shared by the teachers, it implies that they hold a positive attitude towards using Taglish as LOI during a class discussion in the new normal because of the countless benefits it brings forth.

4 Discussion

It has been noted that MTB-MLE involves the implementation of local languages as the language of instruction (LOI) in kindergarten to grade three, along with the official languages, which are Filipino and English, being introduced as the LOI after grade three. However, in most schools where diverse native languages are used by the learners, a lingua franca is seen as the alternative LOI rather than the learners' mother tongue. In the study of Ponce and Lucas (2021), they discovered that both parents and learners acknowledged an overwhelming use of Tagalog, in contrast to the conclusions of Smolicz and Nical (1997) who showed that multilingual learners preferred to use their native languages over Tagalog.

Without a doubt, this further supports the findings found in this study, where teachers preferred to use Taglish as LOI in their online classes. In fact, they shared similar sentiments about the positive advantages of using Taglish as an LOI, which includes the active participation of pupils during class discussions. In addition, the learners found it easy and free to express themselves whenever they were allowed to use Taglish. They achieve greater self-confidence and self-esteem because they are permitted to use the language that they speak and understand. Moreover, it has never been a piece of cake on the part of the teachers. They also encountered setbacks and challenges, such as difficulty in translating word-by-word terminologies because some words have no equivalent term in the target language. Nevertheless, despite this struggle, they persisted in using Taglish as LOI because the benefits it brings forth weigh greater than its downsides.

At this point, going back to the core of the MTB-MLE program, it demands that learners' mother tongues should be used as LOI in teaching different subjects from kindergarten to grade three, and only Filipino and English as LOI in the intermediate level. However, it is observed that there has been a strong preference for using the lingua franca, which is Tagalog, in teaching learners in lower grades. This situation might imply negative effects in the light of celebrating the local languages of the learners in the academic institutions. As cited by Ponce and Lucas (2021), if this strong demand for a lingua franca persists, local languages may lose their significance in academic institutions, especially in places where a Lingua Franca Model (LFM) of MTE is established. As a result, it might jeopardize the use of native languages in schools because of the high premium given to national and dominant languages (i.e., Tagalog and English).

5 Conclusion

Ultimately, this study attempted to describe the experiences of K-3 teachers in teaching different content subjects using Taglish as the LOI. Basically, this set-up of using Taglish as LOI can be rooted back in several reported studies wherein it was discovered that there were schools that disapproved of the use of mother tongues as LOI in teaching K-3 pupils. Consequently, teachers then have become strongly supportive of using Taglish as LOI despite withdrawal from the idea of MTB-MLE policy. Moreover, the study revealed that teachers have forwarded several benefits and advantages to using Taglish as LOI. These include the

learners achieving higher self-confidence and being actively participative throughout class discussions, even if the classes were done online.

In addition, the study further showed that teachers also experienced challenges and difficulties during the process. It should be emphasized, however, that it never became a reason to halt the use of Taglish as LOI in the multilingual classroom where learners came from different ethnolinguistic backgrounds. Furthermore, this strong preference of teachers in utilizing the lingua franca (i.e., Taglish) in teaching has a detrimental impact to the policy as it might give birth to another problem, which is the endangerment of local languages in the academic institutions. As a result, the researchers suggest to further investigate and keenly look at how to facilitate the use of Taglish as LOI without comprising the presence of local languages in the community as this has implications for pedagogy in the light of MTB-MLE implementation. Overall, the study contributes to the existing studies in light of pedagogical advantages and disadvantages of K-3 teachers' experiences in using Taglish as an LOI in the new normal.

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Thesis & Dissertation Abstracts

Ang Pagtatasa sa Sigla ng mga Wika at Diyalekto sa Pilipinas: Kalagayan at Patutunguhan

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Malaon nang paksa ng iba't ibang mga pag-aaral at kongresong pangwika ang nakababahalang kalagayan ng marami at patuloy pang dumaraming mga wika sa daigdig. Sa kabila nito, kapansin-pansing sa kontektso ng Pilipinas, ang diskurso tungkol sa panganganib ng mga wika ay hinuhubog ng mga palagay at dulog mula sa labas ng bansa. Sa ganang ito, nilalayon ng kasalukuyang pananaliksik na makaambag sa pagpapanibagong-hulma ng nakahiratihang naratibo sa diskurso ng panganganib ng mga wika sa pamamagitan ng pagsisiyasat sa mga lapit na malimit na ginagamit sa pagtatasa sa sigla ng mga wika sa bansa at sa pagpapanukala ng sistemang aangkop sa natatanging kontekstong kinaiiralan ng mga wika at diyalekto sa Pilipinas. Upang maabot ang mga layuning ito, kritikal na sinuri ang tatlong lapit (i.e., language vitality and endangerment o LVE ng UNESCO (2003), expanded graded intergenerational and disruption scale o EGIDS nina Lewis at

Simons (2010), at language endangerment index o LEI nina Lee at Van Way (2016)) na karaniwang ginagamit sa pagtatasa sa sigla ng mga wika sa Pilipinas. Mula sa naging tuklas sa ginawang pagsusuri, bumalangkas ng isang sistema para sa pagtatasa sa sigla ng mga wika at diyalekto sa bansa. Ang binuong sistema ay ginamit sa pagsilip sa kalagayan ng dalawang wika (i.e., Ayta Magbukun at Kinaray-a) at isang diyalekto (i.e., Kapampangan Mabatang). Lumutang sa pananaliksik na isa sa mga pangunahing suliranin sa diskurso ng sigla at panganganib ng mga wika at wikain sa bansa ay ang paggamit ng mga sukatang hindi naaangkop o mahirap ipilit na maiangkop sa danas ng mga komunidad pangwika sa bansa. Kung kaya, ang pagkakaroon ng isang sistemang payak ngunit nakabatay sa nangyayari sa Pilipinas ay tunay na kinakailangan upang matamang masuri ang estado ng mga wika at diyalekto sa bansa.

Cruz, Noah D.U. (2024). *Ang pagtatasa sa sigla ng mga wika at diyalekto sa Pilipinas: Kalagayan at patutunguhan* [Unpublished master's thesis]. Department of Linguistics, University of the Philippines Diliman.

Pagbabalik-tanaw sa Linkers: Isang Historikal na Pagsusuri sa mga Piling Wika sa Pilipinas

Johans B. Cruz

Ang LINKER sa ilang mga eksposisyong gramatikal ay madalas nababanggit sa mga deskripsyong panggramatika ng mga wika ng

Pilipinas, ngunit iba-iba ang kahulugan at pagkakakonsepto nito sa bawat akda. Sa tesis na ito, babalikan ang ilang akda na nagpapaliwanag ng sistema ng wika o gramar, buhat sa sinilangan ng katawagang ito, sa panahon ng mga *arte* o gramar ng mga misyonero hanggang sa kasalukuyang siglo. Mula sa panahong ito ng mga gramar ng mga misyonero, tutuntunin ang pag-unlad ng mga LINKER sa pagdaan ng panahon: sa panahon ng pananakop ng Amerika, sa panahon ng pagsasarili, at hanggang sa kontemporaryong konseptwalisasyon. Titingnan dito ang mga pinagkahawig at pinagkaiba ng mga akdang ito sa pagtalakay sa LINKER at mga naging impluwensya nito. Magiging gabay rin ang mga tanong na ito: (1) Paano ang pagkakatalakay ng mga dating eksposisyong gramatikal sa pagpapalawig ng pariralang pangpangngalan kaugnay ang mga LINKER? (2) Ano ang katangiang ponolohikal, morpolohikal at sintaktikal ng mga LINKER sa mga akdang ito? (3) Anu-ano ang pagkakahawig at pagkakaiba ng mga pagkakatalakay sa LINKER na may kaugnayan sa gamit nitong pagpapalawig ng pariralang pangpangngalan sa Ilocano, Kapampangan, at Tagalog? at (4) Anu-ano ang mga pagbabago sa pagkakakonsepto ng LINKER sa pagdaan ng panahon? Mahalaga ang pag-aaral na ito upang maunawaan ang pag-unlad ng isang kategorya o termino na palasak sa wika sa Pilipinas at isa rin sa mga prominenteng katangian ng mga ito.

Cruz, Johans B. (2024). *Pagbabalik-tanaw sa linkers: Isang historikal na pagsusuri sa mga piling wika sa Pilipinas* [Unpublished master's thesis]. Department of Linguistics, University of the Philippines Diliman.

Bagobo-Klata: Grammar and Vocabulary

Edward G. Estrera

This thesis is a grammatical description of Bagobo-Klata (ISO 639-3 [bgi]), a highly endangered Philippine language spoken by fewer than 10,000 people in the eastern slopes of Mt. Apo in Davao City, Davao del Sur in the island of Mindanao. Furthermore, it is based on firsthand linguistic fieldwork carried out in Calinan District, Davao City. This description is the first ever comprehensive account of Bagobo-Klata, which is accompanied by a vocabulary list with around 3,000 entries. The topics addressed include the sound system (phonemic inventory, syllable structure, word accent, phonotactics, morphophonological processes, and notes on orthography); content (nouns, adjectives, verbs, and adverbs) and function words (nominal markers, pronouns, demonstratives, interrogatives, quantifiers, numerals, prepositions, negators, modal expressions, discourse particles, and conjunctions); clause structure (phrases and constituent order); clause types according to predicate heads (verbal and nonverbal constructions) and pragmatic function (existential and possessive, negative, and interrogative constructions); modality (propositional and event modality expressions); and clause combinations (coordination, adverbial clauses, relative clause constructions, and complement clauses).

The salient features of Bagobo-Klata are mostly phonological—geminates (long consonants), consonant clusters (or complex onsets), and selected morphophonological processes such as syllable deletion and phonetic reinstatement (which is contrasted with epenthesis in this study). In terms of geminates, these phonological features are often

associated with Northern Luzon languages, especially Ilokano, but there are also Philippine languages in Visayas and Mindanao with geminates. While geminates in Bagobo-Klata can also be derived, most of them are products of historical sound changes such as full assimilation and consonant lengthening. Consonant clusters, on the other hand, can be said to be similar to geminates on account of the ways they have arisen, but the former differ because they are always word-initial. Then, Bagobo-Klata has several affixes that trigger a syllable, an antepenultimate one or an identical one, to be deleted on account of the nominal or verbal suffixation of *-ɔ* or *-a*; the same suffixes can also cause historically lost word-final consonants such as *-h, *-n, and *-l to resurface.

At the level of morphosyntax, syncretism is rampant: Bagobo-Klata has several multifunctional expressions. The verbal prefix *pɔ-* can be used to encode IRREALIS, INSTRUMENTAL VOICE or IRREALIS, CAUSATIVE in three voices (ACTOR, PATIENT, and LOCATIVE). Moreover, the IMPERFECTIVE and PERFECTIVE forms of affixed verbs in Bagobo-Klata syncretized too, thereby relying on aspectual-marking particles to distinguish such forms (and context). Another is *nɛŋ*, which is the form of the singular nominal marker in ERGATIVE and GENITIVE cases and is also used as a linker of manner adverbs. Finally, it is through these typologically interesting features of Bagobo-Klata that this grammatical description

attempts to contribute to the literature of Philippine linguistics and Austronesian linguistics.

Estrera, Edward G. (2024). *Bagobo-Klata: Grammar and vocabulary* [Unpublished master's thesis]. Department of Linguistics, University of the Philippines Diliman.

A Typological Comparison of Tagalog, Malay, Äiwoo, Hawaiian, and Thai

Dave Ryan Mikhail S. Go

In light of studies connecting Austronesian and Kra-Dai languages, this research aims to compare the typology of the five languages—Tagalog, Malay, Äiwoo, Hawaiian, and Thai. They may be classified into the categories of *Philippine-Type* or *Austronesian Symmetrical Alignment-Based Languages*, *Indonesian-Type Languages*, *Transitional Oceanic-Type Languages*, *Analytic Oceanic-Type Languages*, and *Isolating Kra-Dai Languages* respectively.

The languages share features that are common to VO languages, such as nouns before genitives, nouns after prepositions, verbs preceding adpositional phrases, adjectives and modifiers after the modified, verbs before manner adverbs, auxiliary verbs before content verbs, and nouns before relative clauses. The results of the study showed that, generally being in a language family with VO languages, a typical Austronesian or Kra-Dai language has the aforementioned features. Meanwhile, there

are major differences, such as the use of agglutination or the use of symmetric voice in the spectrum.

The study also has questions on the possible shifts from agglutination to analytic/isolating structures. In particular, this may be found in fossilized affixes in languages, such as Hawaiian (as well as Proto-Kra-Dai and Khmer to name a few others), and transitional languages, such as Äiwoo that occur in the same language family branch. Moreover, conservative languages in certain language families tend to be more agglutinative, such as Austronesian symmetrical alignment-based languages and Indonesian-type languages in Austronesian languages (and conservative languages in Austroasiatic and Sino-Tibetan as well).

In the field of Southeast Asian linguistics, this work aims to contribute to the literature of comparative typology, especially in light of the similar features that can be found throughout the language families.

Go, Dave Ryan Mikhail S. (2024). *A typological comparison of Tagalog, Malay, Äiwoo, Hawaiian, and Thai* [Unpublished master's thesis]. Department of Linguistics, University of the Philippines Diliman.

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