Modality in Bagobo-Klata and Tausug

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Abstract

In the study of Philippine languages, there is a lack of consensus among linguists on how modality, as a linguistic category, is expressed: it is often associated with aspect and tense and, hence, described as a category morphologically expressed via verbal affixation, while in some studies, modality is a subordinated topic under adverbs because of their clitic-like behavior. According to typological studies on modality, one reason why it is rather vague and difficult to characterize is that it takes different forms or expressions (e.g., affixes, verbs, and particles) and encode various seemingly unrelated meanings (e.g., ability, desire, obligation, potentiality, and wishes) (Bybee et al., 1994; Nuyts, 2016). Consequently, this study aims to examine modality in two Philippine languages—Bagobo-Klata and Tausug—to provide a unified and coherent account of modality based on a typological framework modified by

Vondiziano (2019) and primarily based on Palmer (2001) and van der Auwera and Plungian (1998). Specifically, it will identify corresponding expressions and generally describe their respective semantic and morphosyntactic features; the lexical origins of these expressions will also be traced. As will be shown in this paper, the linguistic category of modality in Bagobo-Klata and Tausug is expressed through a mood system of non-joint-marking affixes and modal systems independent of mood—propositional and event modalities. The expressions of propositional modality are mostly modal particles, as well as modal verbs, while the ones under event modality, modal verbs and modal affixes.

1 Introduction

In the study of Philippine languages, modality (more commonly referred to as either mode or mood) is typically characterized as one of the several categories—voice, aspect, and valence—morphologically encoded in verbs. It is expressed through verbal affixes[1] and is generally divided into different types, namely: indicative or general (actualized or real events), abilitative (events performed through someone's ability), potentive (accidental or possible events), causative (events brought about by a causer and performed by a causee), reciprocal (events performed by only two or more than two participants on one other), and imperative (affirmative

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[1]In Blaan (Sarangani and Koronadal) and Tboli, aspect, as well as mood, is expressed lexically through a set of aspectual-marking particles (Bondoc, 2015; Forsberg, 1992; Porter, 1977).

or negative command) (Bondoc, 2015; Estioca, 2020; Manzano, 2019; Or, 2018; Robinson, 2008; Wolfenden, 1971; Zorc, 1977). Other types of mode affixes are collective (events done collectively by plural agents), distributive (plural events or those done repeatedly), repetitive (events done repetitively), and social (events performed socially with other individuals). However, there are other expressions of modality, such as modal verbs and modal particles, which are not analyzed as such, but they are often subsumed under adverbs and treated as such on account of clitic-like behavior and syntactic distribution (Antworth, 1979; Bondoc, 2015; Dita, 2007; Manzano, 2019; Or, 2018; Porter, 1977; Robinson, 2008; Villareal, 2020; Wolfenden, 1971; Zorc, 1977). Modal particles tend to cliticize to the clause-initial element and together with bound pronouns adhere to a specific order, while modal verbs which are widely known as pseudo-verbs in Philippine languages are often restricted to a sentence-initial position.

This general description reveals a significant observation: modality in Philippine languages is an incoherent linguistic category, which is evident in the studies[2] that focus only on one specific modality expression, i.e., a verbal affix, and overlook other forms it takes, e.g., modal particles and verbs that also carry modal meanings, and those that treat these expressions as subordinated topics—the verbal affixes being under the section of verbs and modal particles and verbs discussed under adverbs. It is also a reflection of the rather vague nature of modality, which is

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[2] These mostly include grammatical sketches and reference grammars in Philippine languages, as well as linguistic works regarding reconstruction and subgrouping. However, Vondiziano (2019) is the first account to acknowledge the need to examine modality as a coherent linguistic category in a Philippine language, specifically in Yami, a member of the Batanic subgroup.

difficult to characterize because of the seemingly unrelated meanings it expresses, i.e., ability, assumption, certainty, command, desire, obligation, permission, potentiality, suggestion, and wish, and because of the different kinds of forms it takes, i.e., affixes, particles, and verbs (Bybee et al., 1994; Nuyts, 2016).

Consequently, this study provides a unified account of how modality is encoded in two Philippine languages, Bagobo-Klata and Tausug, to characterize it as a coherent linguistic category. To examine modality as such, this paper builds on the typology of modal categories modified by Vondiziano (2019), which is primarily based on Palmer (2001) and van der Auwera and Plungian (1998). The main objectives of this study are to identify expressions of modality in Bagobo-Klata and Tausug according to the modified typology set out in Vondiziano (2019) and to describe the morphosyntactic and semantic characteristics of such expressions in these languages. The possible origins of such expressions, in lieu of semantic maps,[3] will also be traced. However, due to the limitations of this study, discourse properties of these expressions, as well as their scope relations and interactions with each other and other grammatical markers such as negation, will not be explored in this paper, which of course acknowledges the importance of contexts in elucidating modality (Bybee & Fleischman, 1995).

This paper is organized as follows. In §2, the respective typological profiles of Bagobo-Klata and Tausug will be briefly introduced. In §3, how the data for this study have been collected and analyzed and how they will be presented will be set out. In §4, the framework of modality,

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[3]Semantic maps are provided to show the grammaticalization path of a given form, a modal verb in the case of modality (van der Auwera & Plungian, 1998).

which covers modality as a notional category and its categories from a typological perspective, will be explained. In §5, mood in Bagobo-Klata will be described, while in Sections 6 and 7, the expressions of the two main types of modal systems, propositional and event, will be discussed, focusing on their morphosyntactic and semantic features and possible lexical origins.

2 The Typological Profiles of Bagobo-Klata and Tausug

Bagobo-Klata (ISO 639-3: bgi) and Tausug (ISO 639-3: tsg) are Philippine languages both spoken in the island of Mindanao (Eberhard et al., 2022). The former, sometimes referred to as G(u)iangan, is spoken in the eastern slopes of Mt. Apo, which approximately covers around 50 barangays scattered in five districts—namely, Baguio, Buhangin, Calinan, Talomo, and Tugbok—in Davao City, Davao del Sur, while the latter is primarily spoken in the Sulu archipelago, which includes the provinces of Basilan, Sulu, and Tawi-Tawi. Regarding subgrouping, Bagobo-Klata, together with Blaan, Tboli, and Tëduray, belong to the South Mindanao subgroup, while Tausug is part of the South Bisayan axis of the Central Philippine subgroup, which also includes Butuanon and Surigaonon.

(1) Bagobo-Klata keng tokkoli niya.
bagɔbɔ klata kɛŋ tɔkkɔli nija
bagɔbɔ klata   kɛŋ=tɔ-k~kɔli=nija
Bagobo-Klata ABS=NOM-RED~word=3SG.GEN
'Bagobo-Klata ang salita niya.'
'His/her language is Bagobo-Klata.'

(2) Hidihil ku kaymu in sin ku.
hidihil ku kajmu ʔin sin ku
hi-dihil=ku   kajmu   ʔin=sin=ku
IRR.PV-give=1SG.ERG 2SG.OBL CORE=money=1SG.GEN
'Ibibigay ko sa'yo ang pera ko.'
'I will give my money to you.'

As shown in (1) and (2), Bagobo-Klata and Tausug can be said to be agglutinating—that is, languages whose words consist of clearly segmentable morphemes, each of which carries a meaning. In (1), the Bagobo-Klata head noun *tokkoli* can be divided into the lexical nominalizer *to-* and the root *koli* 'word,' while in (2), the Tausug affixed verb *hidihil* can be segmented into the irrealis patient-voice affix *hi-* and the root *dihil* 'to give.' In addition to morphological typology, the example sentences above also show that Bagobo-Klata and Tausug are predicate-initial—that is, their clauses begin with a predicate followed by noun phrases—and that their predicate slots can be filled not only by a verb but also by non-verbal elements, such as nouns, adjectives, and prepositional phrases. Hence, clause types in these languages can be classified in terms of predicate heads—that is, verbal or nonverbal. Finally, in terms of morphosyntactic alignment, Bagobo-Klata and Tausug are both ergative-absolutive, which is overtly marked in their

referential expressions, but in Tausug, nominal markers only distinguish which arguments are core and which ones are peripheral (McFarland, 1978).

3 Methods of the Study

The data used in this study were virtually collected through Facebook Messenger from September 2021 to June 2022 in compliance with the COVID-19 protocols. On account of data availability, only two Philippine languages, Bagobo-Klata and Tausug, were sampled. The type of data collected is elicited; these language samples "accomplish communicative tasks[4]" that are hypothetical and are without context (Payne, 1997, p. 366). Because of the lack of context needed to analyze modality expressions, the language consultants[5] of these languages were asked to recall sentences in which these forms would normally occur, to judge their contextual appropriateness, and to distinguish the differences between multiple corresponding expressions for each modal category.

Since the data collected could not be recorded because of the COVID-19 restrictions, the sentences provided by the language consultants were manually transcribed according to the symbols used in the International Phonetic Alphabet (IPA) and the respective orthographies used in Bagobo-Klata and Tausug. To ensure the accuracy of the pronunciation, these sentences were read back to them two to three times. The

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[4]These tasks "fulfill a metalinguistic request on the part of the linguist" and "to accommodate the response by providing a reasonable analog to some hypothetical utterance in another language" (Payne, 1997, p. 366).

[5]Heartfelt gratitude is extended to my Bagobo-Klata—Clara B. Icdang, Christine May B. Villagracia, and Naven F. Bato—and Tausug—Jeffrey A. Rajik, Wyrhana J. Quizon, and Nuriza P. Jalani—language consultants.

Facebook Messenger or phone calls with the language consultants could have been recorded had the internet connectivity or the mobile network been not intermittent.

An elicitation material was created to collect the various forms of modality, which cannot be captured in a traditional sentence list such as the one by UP Department of Linguistics which roughly contains 800 Tagalog sentences to be translated in a given language under study. Such forms were based on the modality expressions found by Vondiziano (2019) in Yami. This material is divided into two major sections, propositional and event, and written in Binisaya (the Cebuano variety spoken in Davao City) and Tagalog, which are the languages of wider communication used in the provinces of Davao del Sur and Tawi-Tawi, respectively.

(3)	Maa ung mangga.	(1) Orthographic	
	maʔa ʔuŋ maŋga	(2) Phonetic	
	m-(k)aʔa=ʔu=nɛŋ=maŋga	(3) Morphophonological	
	IRR.AV-eat=1SG.ABS=GEN=mango	(4) Morphemic	
	'Kakain ako ng mangga.'	(5) Tagalog Translation	
	'I will eat a mango.'	(6) English Translation	

Regarding data presentation, the sentences are glossed in six tiers or layers, as shown in (3). The first tier provides the orthographic representation of Bagobo-Klata or Tausug sentence. The second tier provides the phonetic transcription, while the third one captures the morphophonological processes operating and employs symbols, such as hyphens and equal signs as indicators of morpheme and word boundaries. The fourth tier is the interlinear morphemic gloss, which "gives information about

the meanings and grammatical properties of individual words and parts of words" (Comrie et al., 2015). The fifth and sixth layers are free translations of the Bagobo-Klata or Tausug sentence in Tagalog and English.

4 Modality

To characterize modality as a coherent linguistic category in Bagobo-Klata and Tausug sufficiently, this paper adopts the modified typology of modal categories used in Vondiziano (2019). This framework is primarily based on Palmer (2001)'s *Mood and Modality* and van der Auwera and Plungian (1998)'s "Modality's semantic map." In this framework, modality is viewed as a notional category, instead of a formal one, because its formal manifestation varies cross-linguistically, making this linguistic category difficult to define and to describe.

From a typological perspective, modality is closely associated with tense and aspect, and these categories are generally labeled together as TAM. Unlike the other two, modality is not concerned with any feature of an event[6] but "the status[7] of the proposition" describing the event (Palmer, 2001, p. 1). Moreover, it covers a broad range of semantic nuances, i.e., speculation, deduction, obligation, necessity, desire, intention, and potentiality, that can be overlaid or supplemented to the most neutral semantic value of the proposition of an utterance, namely factual

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[6]The term *event* here is a cover term for a state, action, situation, or event (Palmer, 2001).

[7]In Palmer (2001)'s definition, the term *status* is unspecified, but Cheng and Sung (2015) suggest that it might be appropriately interpreted as how the speaker puts the proposition into the discourse context (Bybee, 1985, p. 165).

or declarative (Bybee & Fleischman, 1995). This definition reveals a binary distinction between what is considered modal or non-declarative and what is considered non-modal or declarative, and it can be associated with the notional contrast of factual or real and non-factual or unreal (Palmer, 2001). This contrast is taken to be "the highest-level distinction," i.e., realis and irrealis, within the category of modality. A prototypical realis mood "strongly asserts that a specific event or state of affairs has actually happened, or actually holds true," while a prototypically irrealis mood "makes no such assertion whatsoever" (Payne, 1997, p. 244). Moreover, realis refers to actualized events that are knowable via direct perception; irrealis, unactualized events that are knowable only in the mind (Palmer, 2001).

In the literature, mood and modality are terms that have been interchangeably used to refer to modality as a notional category. At this juncture, it is useful to differentiate these terms. Modality is the semantic domain pertaining to elements of meaning that languages express, while mood refers to a formally grammaticalized category of the verb which has a modal function (Bybee & Fleischman, 1995, p. 2). In other words, modality is the semantic domain, to which mood, as its inflectional or morphological expression, belongs.

In terms of the formal expression of the notional category of modality, mood and a modal system are the two ways languages deal grammatically with the overall category of modality. First, mood is a prototypically binary system in which all or most clauses are marked as either realis or irrealis. Second, a modal system is an organized expression of modality that is independent of mood. Specifically, languages like Tagalog and Cebuano may have both mood and (a) modal system(s), but one of

them is said to be more salient. In some languages like English, only one occurs (Palmer, 2001, p. 4).

Regarding the organization of modality in this study, it will be divided into two major parts: mood and modal systems. These systems will be organized according to two basic parameters: (a) propositional and event modalities; and (b) scalarity. As shown in Table 1, the first parameter refers to the largest and most basic categories of a modal system: propositional and event (Vondiziano, 2019, p. 38).

Table 1. The Modified Typology of Modal Categories

Propositional Modality		Event Modality		
Epistemic	Evidential	Participant-Internal	Participant-External	
			Deontic	Non-deontic
Speculative Deductive Emphatic Veridical	Reported Sensory	Abilitative Potentive Volative Desiderative Commissive	Commands Demands Suggestion Permission Obligation Commissive	Abilitive Potentive Suggestion Permission Obligation

Propositional modality refers to "the speaker's attitude to the truth-value or factual status of the proposition" (Palmer, 2001, p. 8). It is mainly divided into two—epistemic and evidential. Epistemic modality is concerned with the speaker's judgment about the proposition's factual status, and it has three types: speculation, the speaker's guess at the probability of some event; deduction, the speaker's judgment about the probability or necessity of some state of affairs based on prior knowledge; and assertion or veridical, the speaker's active assertion of a proposition's

truth value (Palmer, 2001; Vondiziano, 2019). Evidential modality is concerned with the evidence the speaker has for the proposition's factual status, and it can be further divided into two types: reported, evidence originating from another source; and sensory, evidence based on humans' five senses (Palmer, 2001).

Event modality, on the other hand, refers to unactualized, merely potential events and ones that are yet to happen. It can be classified into participant-internal and participant-external modalities. The demarcation primarily adopted here is that of Palmer (2001), but the main types of event modality, which are based on the enabling or compelling circumstances predicated on the event, are from van der Auwera and Plungian (1998) to avoid the problem[8] presented by Bybee et al. (1994).

Participant-internal modality refers to enabling conditions that are internal to the participant engaged in an event and that make it possible or necessary. It includes volative (the participant's inherent willingness to perform some action), desiderative (the participant's inherent desire or wish for some course of action), and commissive modalities (the participant's inherent commitment to some course of action). Conversely, participant-external modality refer to "circumstances that are external to the participant, if any, engaged in the state of affairs and that make this state of affairs either possible or necessary" (van der Auwera & Plungian, 1998, p. 80), and it has two subtypes: deontic and non-deontic modalities. These mainly differ in the source of the external enabling factors:

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[8]Palmer (2001) considers Bybee et al. (1994)'s dichotomy of event modality, i.e., agent-oriented and speaker-oriented, slightly strange. Permission and obligation, which are subsumed under agent-oriented modality, are more speaker-oriented because the condition factors for these modal meanings are external to the agent, that is, coming from the speaker rather than the agent.

the former (speaker-driven) comes from a person, while the latter (circumstantial), environmental, circumstantial, and existential factors (van der Auwera & Plungian, 1998; Vondiziano, 2019). Additionally, both types have in common suggestion, permission, and obligation, but deontic, participant-external modality includes commands, demands, and requests, while the non-deontic one includes abilitative and potentive modalities, which it shares with participant-internal modality.

Modal expressions are semantically scalar, that is, as observed in the first parameter they are either possible (weak) or necessary (strong), but abilitative and potentive modalities are exceptions because they are binary (Nuyts, 2016; Palmer, 2001; van der Auwera & Plungian, 1998). However, this paper agrees with Vondiziano (2019) that possibility and necessary hardly represents the two extremes of the modality scale because they do not seem to capture the weakest and strongest values. So in this paper, weak and asserted occupy the two extremes of the scale, while strong is placed near asserted. It must be noted too that modal expressions occupy a range in the scale rather than a single point (de Haan, 1997).

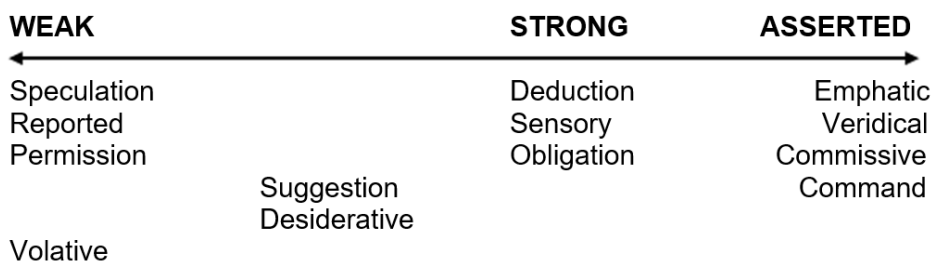| WEAK		STRONG	ASSERTED
Speculation		Deduction	Emphatic
Reported		Sensory	Veridical
Permission		Obligation	Commissive
	Suggestion		Command
	Desiderative		
Volative			

Figure 1. Scalar Model of Modal Categories (Vondiziano, 2019, p. 39)

5 Mood

Mood is one of the categories—i.e., aspect, voice, transitivity, and valency—morphologically encoded in Bagobo-Klata and Tausug verbs. The system of mood in these languages is binary, marking a verbal construction as either realis or irrealis. As shown in Tables 2 and 3, the mood systems in Bagobo-Klata and Tausug can be generally distinguished in terms of voice. In this paper, voice is defined as a system in which the formal alternation of the reflex of Proto-Austronesian (PAɴ) *<um> 'actor voice,' on the one hand, and the reflexes of PAɴ *-en 'patient voice,' *-an 'locative voice,' and *Si- 'instrumental or benefactive voice' signals a transitivity of a given clause and the semantic role of the syntactically privileged argument to which the voice affix is co-indexed (Blust & Trussel, 2020; Nolasco, 2003).

Table 2. Mood Affixes in Bagobo-Klata

	Irrealis	Realis
Actor Voice	m-*	bɔn-, n-, <ɔmm>
Patient Voice	mɛm-, -ɔ, mɔm-	bɔ-
Locative Voice	-a; tam-	bɔ-C~…-a; tamm-
Instrument Voice	pɔ-; p-	pɔ-C~; pɔnn-†

* In Bagobo-Klata, there are several verbs that do not take this affix, both its irrealis and realis forms, such as *ballɛŋ* 'to come or return home,' *baːsa* 'to read something,' *bɛːnɛʔ* 'to cry,' *gammi* 'to start,' *bɔttik* 'to rise up,' *gaːliʔ* 'to make or do something,' and *takkɛʔ* 'to laugh at somebody or something.'

† *pɔnn-* can also become *pɔll-* depending on the verbal root. The latter applies to verbs such as *ʔiddi* 'to boil something' and *ʔaŋŋaʔ* 'child.'

The actor voice (ᴀᴠ) affixes in Bagobo-Klata and Tausug are discussed in §5.1, while the non-actor voice affixes in Bagobo-Klata and Tausug,

Table 3. Mood Affixes in Tausug

	Irrealis	Realis	
	Contemplative	Imperfective	Perfective
Actor Voice	<um>~m-, maN-, mag-	C<im>V~, m<ij>V~, m<in>(C)V~, naN-(C)V~, nag-CV~	<im>, m-<ij>, m-<in>, naN-, nag-
Patient Voice	-un, hi-	C<ij>V~	<ij>
Locative Voice	-an	C<ij>V~…-an	<ij>…-an
Instrument Voice	hipaN-	p<ij>aN-CV~	p<ij>aN-

which include patient voice (ᴘᴠ), locative voice (ʟᴠ), and instrument voice (ɪᴠ), in §5.2, §5.3, and §5.4, respectively.

5.1 Actor Voice[9]

Bagobo-Klata only has one ᴀᴠ affix that encodes irrealis mood, while Tausug has three irrealis ᴀᴠ affixes that compete. As shown in (4) and (5), *m-* in Bagobo-Klata is a replacive affix that nasally substitutes for nearly all base-initial sounds in roots, except for velar stops /g/, semi-vowels /j, w/, and nasals /m, n, ŋ/ (Estrera, 2021). In the Bagobo-Klata sentences in (4) and (5), the co-indexed arguments marked by the

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[9]In this study, the term *actor* is defined as a semantic macrorole. It is an all-encompassing term that includes a range of a specific roles, such as a prototypical agent, an entity that acts consciously and volitionally and accomplishes an action with "a physical, visible effect;" a force, an entity that causes an action without consciousness and volition; an instrument, an entity that indirectly causes an action; and an experience, an entity neither in control nor "visibly affected by action" (Payne, 1997, pp. 49–50; Van Valin & LaPolla, 1997).

personal nominal marker *ho* are both semantically agentive, that is, both Naven and Gabriel will perform what they will do with consciousness and volition.

(4)   **M**annek ho Naven ta bulud no Appu Sandawa.
       manˈnɛk hɔ nɛjvɛn ta bulud nɔ ʔappu sandaːwaʔ
       m-(p)anˈnɛk hɔ=nɛjvɛn   ta=bulud=nɔ=ʔappu=sandaːwaʔ
       ɪʀʀ.ᴀᴠ-climb ᴀʙs=Naven ᴏʙʟ=mountain=ɢᴇɴ=Apo Sandawa
       'Aakyat si Naven sa Bundok Apo.'
       'Naven will climb up Mt. Apo.'

(5)   **M**aa ho Gabriel neng talum.
       maˈʔa hɔ Gabriel nɛŋ talum
       m-(k)aˈʔa hɔ=Gabriel   nɛŋ=talum
       ɪʀʀ.ᴀᴠ-eat ᴀʙs=Gabriel ɢᴇɴ=papaya
       'Kakain si Gabriel ng papaya.'
       'Gabriel will eat papaya.'

Shown in (6) and (7) are allomorphs of the Tausug AV infix *<um>*: *m-* attaches to roots, the base-initial roots of which are /p, b/ and occasionally /ʔ/, while *<um>* is inserted elsewhere. Then, in (8) and (9) are *mag-* and *maN-* affixes: *mag-* has no morphophonological requirement, while *maN-* on the other hand is a prefix that partially or fully assimilates to the base-initial sound in roots. Of the three AV affixes in Tausug, *<um>* is perhaps the most productive.

In the Tausug sentences from (6) to (9), the co-indexed arguments, mostly marked by the nominal marker *in*, are all prototypically agentive—that is, both children in (6) and (9) will consume a mango and purchase a candy with volition; the speaker in (7) is conscious that

he will walk, while the farmer in (8) will consciously and volitionally plant sweet potatoes.

(6) K**um**aun in bata-bata' mangga.
   k**um**aʔun ʔin bataʔ bataʔ maːŋga
   k**<um>**aʔun ʔin=bataʔ-bataʔ ø=maːŋga
   <IRR.AV>eat ABS=child   GEN=mango
   'Kakain ang bata ng mangga.'
   'The child will eat a mango.'

(7) **M**anaw ako.
   manaw ʔaku
   m-(p)anaw=ʔaku
   IRR.AV-walk=1SG.ABS
   'Maglalakad ako.'
   'I'll walk.'

(8) **Mag**tanum in mag-uuma panggi.
   magtanum ʔin magʔuʔuma paŋiʔ
   mag-tanum ʔin=mag-ʔu-ʔuma ø=paŋiʔ
   IRR.AV-plant ABS=NOM-RED~farm GEN=sweet potato
   'Magtatanim ang magsasaka ng kamote.'
   'The farmer will plant sweet potatoes.'

(9) **Mam**i in bata-bata kindi.
   mami ʔin bata bataʔ kindi
   maN-(b)i ʔin=bata-bataʔ ø=kindi
   IRR.AV-buy ABS=child   GEN=candy
   'Bibili ang bata ng kendi.'
   'The child will buy a candy.'

In Bagobo-Klata, there are three AV affixes that encode realis mood that seem to compete: *bɔnn-* in (10), *n-* in (11), and *<ɔmm>* in (12). The first two are more productive because they can be affixed to virtually all Bagobo-Klata verbs, while the latter selectively attaches to verbs.

(10) **Bonn**annek hiya ta bulud no Appu Sandawa.
      bɔnnannek hija ta bulud nɔ ʔappu sanda:waʔ
      bɔn-n-(m)-(p)annek=hija
      RLS-RLS-(AV)-climb=3SG.ABS
      ta=bulud=nɔ=ʔappu sanda:waʔ
      OBL=mountain=GEN=Appu Sandawa
      'Umakyat siya sa Bundok Apo.'
      'S/he climbed up Mt. Apo.'

(11) **N**annek hiya ta bulud no Appu Sandawa.
      nannek hija ta bulud nɔ ʔappu sanda:waʔ
      n-(m)-(p)annek=hija   ta=bulud=nɔ=ʔappu sanda:waʔ
      RLS-(AV)-climb=3SG.ABS OBL=mountain=GEN=Appu Sandawa
      'Umakyat siya sa Bundok Apo.'
      'S/he climbed up Mt. Apo.'

As will be seen in the following subsections, *bɔ-*[10] is the marker for realis mood in Bagobo-Klata, an innovation of PAN *<in> 'perfective marker.' Although the realis AV affix *bɔnn-* evidently contains *bɔ-*, the dental nasal geminate *-nn-* has a traceable origin. In this study, *bɔnn-* is argued to have been the combination of *bɔ-* and *n-*, the reflex of PAN

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[10]Although aspect is not morphologically expressed in Bagobo-Klata like in Tausug, it can be semantically encoded through co-occurrence of the realis mood marker *bɔ-* and the aspectual markers *po* and *do*. If used with *po*, *bɔ-* can also encode imperfective aspect, while if used with *do*, perfective aspect.

*<in> in Bagobo-Klata, unraveling why *bɔ-* is optional when inflecting AV realis verbs and that when attached back, it triggers *n-* to geminate.

(12) K**omm**aa keng angnga neng talum.
      kɔ**mm**aʔa kɛŋ ʔaŋŋaʔ nɛŋ talum
      <ɔmm>kaʔa kɛŋ=ʔaŋŋaʔ nɛŋ=talum
      <RLS.AV>eat ABS=child GEN=papaya
      'Kumain ang bata ng papaya.'
      'The child ate papaya.'

Furthermore, regarding *<ɔmm>*, it is hypothesized to have developed from the affix order PAN *<um><in>, which underwent several phonological changes. First, *i in PAN *<um><in> was deleted on account of vowel syncope. Second, *n in PAN *<umn> regressively assimilated to *m, resulting a bilabial nasal geminate. Finally, *u in *<umm> lowered, hence *<ɔmm>*.

Exemplified in pairs from (13) to (16) are the realis counterparts of the irrealis AV affixes in Tausug. The (a) member in each pair is the imperfective form; it consists of the reduplicated penultima of the root and the realis mood marker, which is an infix such as *<im>* in (13a) and *<ij>* in (14a) or a replacive prefix such as *n-* in (15a) and (16a). The (b) member is the perfective form, which is expressed through the realis mood marker.

(13)   a. **Kima**kaun in bata-bata' mangga.

          kimakaʔun ʔin bataʔ bataʔ maŋga

          k\<im>a~kaʔun   ʔin=bataʔ~bataʔ ø=maŋga

          \<RLS.AV>IPFV~eat ABS=child   GEN=mango

          'Kumakain ang bata ng mangga.'

          'The child is eating a mango.'

    b. K**im**aun na in bata-bata' mangga.

          k**im**aʔun ʔin bataʔ bataʔ maŋga

          \<im>kaʔun=na   ʔin=bataʔ~bataʔ ø=maŋga

          \<RLS.PFV.AV>eat=PRT ABS=child   GEN=mango

          'Kumain na siya ng mangga.'

          'S/he ate already a mango.'

(14)   a. **Miyam**anaw ako.

          mijamanaw ʔaku

          m-(p)\<ij>a~manaw=ʔaku

          \<RLS>AV~IPFV-walk=1SG.ABS

          'Naglalakad ako.'

          'I'm walking.'

    b. **Miy**anaw ako.

          mijanaw ʔaku

          m-(p)\<ij>anaw=ʔaku

          \<RLS.PFV>AV-walk=1SG.ABS

          'Naglakad ako.'

          'I walked.'

    Regarding the etymology of *\<im>*, it is not as straightforward as the case of *m-\<ij>*, where the verbal categories can be easily teased apart.

*<im> in this paper is assumed to have been a product of the affix order of PAN *<in><um>, in which the vowel of *<um> was syncopated, hence *<inm>. Then, *n in *<inm> regressively assimilated to *m, and the gemination *mm was lost, ultimately resulting to the realis AV affix *<im>* in Tausug.

(15)   a.   **Nagta**tanum in mag-uuma panggi.
   nagtatanum ʔin magʔuʔuma paŋgiʔ
   n-(m)ag-ta~tanum ʔin=mag-ʔu~ʔuma ø=paŋgiʔ
   RLS-(AV)-IPFV~plant ABS=NOM-RED~farm GEN=sweet potato

   'Nagtatanim ang magsasaka ng kamote.'
   'The farmer is planting sweet potatoes.'

  b.   **Nag**tanum in mag-uuma panggi.
   nagtanum ʔin magʔuʔuma paŋgiʔ
   n-(m)ag-tanum ʔin=mag-ʔu~ʔuma ø=paŋgiʔ
   RLS.PFV-(AV)-plant ABS=NOM-RED~farm GEN=sweet potato
   'Nagtanim ang magsasaka ng kamote.'
   'The farmer planted sweet potatoes.'

(16)   a.   **Namim**i in bata-bata kindi.
   namimi ʔin bata bataʔ kindi
   n-(m)aN-(b)i~(b)i ʔin=bata~bataʔ ø=kindi
   RLS-(AV)-IPFV~buy ABS=child GEN=candy
   'Bumibili ang bata ng kendi.'
   'The child is buying a candy.'

b. **Nam**i in bata-bata kindi.
   nami ʔin bata bataʔ kindi
   n-(m)aN-(b)i   ʔin=bata~bataʔ ø=kindi
   RLS.PFV-(AV)-buy ABS=child   GEN=candy
   'Bumili ang bata ng kendi.'
   'The child bought a candy.'

AV constructions in Bagobo-Klata and Tausug are intransitive, requiring a single core argument. In Bagobo-Klata sentences, the core argument is marked by the personal nominal marker *ho* in (4) and (5) or the common nominal marker *keng* in (12). The privileged argument can be pronominalized such as *hiya* in (10) and (11). As for the core arguments in Tausug AV constructions are marked by the common nominal marker *in*, as exemplified in (6), (8), (9), (13), (15), and (16), or are pronominalized such as *ako* in (7) and (14).

5.2 Patient Voice[11]

Bagobo-Klata has three irrealis patient voice (PV) affixes: *-ɔ*, *mɛm-*, and *mɔm-*. *-ɔ*, which is a reflex of PAN *-en, triggers syllable deletion, as shown in (17), where ʔu, an identical syllable (or sometimes a penultimate syllable), gets deleted. However, of the three, *-ɔ* is the less productive.

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[11]A prototypical patient is an entity that "undergoes visible, physical change in state," although entities that do not show any change in state that can be visibly seen are still considered patientive (Payne, 1997, p. 51).

(17)   Pung**o** nila neng dau neng bulig keng be lulug.
        puːŋɔ nila nɛŋ daʔu nɛŋ bulig kɛŋ bɛ lulug
        puʔuŋ-**ɔ**=nila   nɛŋ=daʔu=nɛŋ=bulig   kɛŋ=bɛ=lulug
        wrap-**IRR.PV**=3PL.ERG GEN=leaf=GEN=banana ABS=PL=rice cake
        'Babalutin nila ng dahon ng saging ang mga suman.'
        'They will wrap the steamed rice cakes with a banana leaf.'

mɛm- and *mɔm-*, on the other hand, are more productive in that they can be affixed to almost all roots. As can be seen in (18) and (19), these affixes are also replacive, that is, they nasally substitute for any word-initial sound in the root, except for stops /g/, semi-vowels /j, w/, and nasals /m, n, ŋ/.

(18)   **Mem**oppo mu ro keng bonnalig nikko?
        mɛmɔppɔ mu rɔ kɛŋ bɔnnalig nikkɔ
        mɛm-(t)ɔppɔ=mu=r-(d)ɔ   kɛŋ=bɔnn-(ʔ)alig=nikkɔ
        IRR.PV-answer=2SG.ERG=PRT ABS=RLS.AV-court=2SG.OBL
        'Sasagutin mo na ba ang nanliligaw sa'yo?'
        'Are you going to say yes to the one courting you?'

(19)   **Mom**inum niya keng tubig.
        mɔminum nija kɛŋ tubig
        mɔm-(ʔ)inum=nija   kɛŋ=tubig
        IRR.PV-drink=3SG.ERG ABS=water
        'Iinumin niya ang tubig.'
        'S/he will drink the water.'

In Tausug, there are two irrealis PV affixes: *-un* in (20) and *hi-* in (21). The former is an obvious reflex of PAN *-en, while the latter seems

to be a replacement innovation of PAɴ *Si-. These affixes differ in the semantic role of the arguments they co-index with: *-un* only takes a patient, while *hi-* requires a theme.[12] In (20), *in Bud Makiling* is a less prototypical patient, as there is no change in state that is visible and physical even after Mt. Makiling's being climbed up on. In (21), *in basura* is a theme because the action of throwing only causes it to move.

(20) Dag**un** isab hi Majid in Bud Makiling.
        daɣ**un** ʔisab hi Madʒid ʔin bud maki:liŋ
        daɣ-(g)[13]-**un**=ʔisab hi=Madʒid ʔin=bud maki:liŋ
        climb-**ɪʀʀ.ᴘᴠ**=ᴘʀᴛ   ᴇʀɢ=Majid ᴀʙs=Bud Makiling
        'Aakyatin din ni Majid ang Bundok Makiling.'
        'Majid will also climb Mt. Makiling.'

---

[12]A theme is essentially a patient in its core. A theme is an entity that "is moved by an action" or "whose location is described," but it remains "constitutionally unchanged" (Saeed, 2016, pp. 150–151).

[13]The morphophonological process whereby a fricative or spirant is derived from some other type of articulation is called spirantization (Crystal, 2006, p. 199). In Tausug, /g/ and /b/ become [ɣ] and [β], respectively, intervocalically. From a diachronic perspective, these allophones can also be considered as products of a subphonemic change, a kind of phonetic change that does not lead to phonemic change (Crowley & Bowern, 2010). These changes are stated below:

$$/^{*}g/ \rightarrow /g/ \ / \begin{cases} \text{[ɣ] intervocalically} \\ \text{[g] elsewhere} \end{cases}$$

$$/^{*}b/ \rightarrow /b/ \ / \begin{cases} \text{[β] intervocalically} \\ \text{[b] elsewhere} \end{cases}$$

(21) **Hi**bugit sin bata-bata' in basura.
      hiβuɣit sin bata bata? ?in basura
      hi-β-(b)uɣ-(g)it sin=bata~bata? ?in=basura
      IRR.PV-throw   ERG=child   ABS=garbage
      'Itatapon ng bata ang basura.'
      'A child will throw the garbage.'

All irrealis PV affixes in Bagobo-Klata have the same realis counterpart only, as shown in (22), (23), and (24). It is expressed through the prefixation of *bɔ-*, which triggers the deletion of *-ɔ* and reinstates the deleted penultima. As can be observed, the PV affix is phonetically null because it cannot co-occur with the realis mood marker.

(22) **Bop**puung nila neng dau neng bulig keng be lulug.
      bɔppu?uŋ nila nɛŋ da?u nɛŋ bulig kɛŋ bɛ lulug
      bɔ-p-pu?uŋ-**ø**=nila   nɛŋ=da?u=nɛŋ=bulig
      RLS-wrap-**PV**=3PL.ERG GEN=leaf=GEN=banana
      kɛŋ=bɛ=lulug
      ABS=PL=rice cake
      'Binalot nila ng dahon ng saging ang mga suman.'
      'They wrapped the steamed rice cakes with a banana leaf.'

(23) **Bot**toppo mu ro keng bonnalig nikko?
      bɔttɔppɔ mu rɔ kɛŋ bɔnnalig nikkɔ
      bɔ-t-tɔppɔ-**ø**=mu=r-(d)ɔ   kɛŋ=bɔnn-(?)alig=nikkɔ
      RLS-answer-**PV**=2SG.ERG=PRT ABS=RLS.AV-court=2SG.OBL
      'Sinagot mo na ba ang nanliligaw sa'yo?'
      'Did you already say yes to the one courting you?'

(24) **Bogg**inum niya keng tubig.
      bɔgginum nija kɛŋ tubig
      bɔ-g~g-(ʔ)inum-**ø**=nija kɛŋ=tubig
      RLS-drink-**PV**=3SG.ERG   ABS=water
      'Ininom niya ang tubig.'
      'S/he drank the water.'

Noticeably, in (25) and (26), the realis PV affix in Tausug is *<ij>*, a morphological innovation from PAN *<in>, where *n became /j/. The (a) member in each pair is the imperfective form; it consists of the partially reduplicated penultima and the realis mood marker *<ij>*. The (b) member, on the other hand, is the perfective form, which is expressed through *<ij>*.

(25) a. **Diya**rag hi Majid in Bud Makiling.
          dijarag hi Madʒid ʔin bud maki:liŋ
          d<ij>a~r-(d)ag-**ø**   hi=Madʒid ʔin=bud maki:liŋ
          <RLS>IPFV~climb-**PV** ERG=Majid ABS=Bud Makiling
          'Inaakyat ni Majid ang Bundok Makiling.'
          'Majid is climbing Mt. Makiling.'

      b. Di**y**ag hi Majid in Bud Makiling.
          dijag hi Madʒid ʔin bud maki:liŋ
          d**<ij>**ag-**ø**   hi=Madʒid ʔin=bud maki:liŋ
          <RLS.PFV>climb-**PV** ERG=Majid ABS=Bud Makiling
          'Inakyat ni Majid ang Bundok Makiling.'
          'Majid climbed Mt. Makiling.'

(26) a. **Biyu**bugit sin bata-bata' in basura.
  bijuβuɣit sin bata bataʔ ʔin basura
  b<ij>u~β-(b)uɣ-(g)it-**ø** sin=bata~bataʔ ʔin=basura
  <RLS>IPFV~throw-**PV**   ERG=child   ABS=garbage
  'Tinatapon ng bata ang basura.'
  'A child is throwing the garbage.'

b. Bi**y**ugit sin bata-bata' in basura.
  bi**ij**uɣit sin bata bataʔ ʔin basura
  b**<ij>**uɣ-(g)it-**ø**   sin=bata~bataʔ ʔin=basura
  <RLS.PFV>throw-**PV** ERG=child   ABS=garbage
  'Tinapon ng bata ang basura.'
  'A child threw the garbage.'

   As will also be seen in §5.3 and §5.4, NAV constructions are transitive, that is, they require two core arguments: an agent and a patient. In the Bagobo-Klata sentences in (17), (18), (19), (22), (23), and (24), the patient is marked by the common nominal marker *keng*, while the agent arguments are ergative personal pronouns such as *nila* in (17) and (22), *mu* in (18) and (23), and *niya* in (19) and (24). In the Tausug sentences in (20), (21), (25), and (26), the patient is marked by either the ergative common nominal marker *sin* or the core personal *hi*, while the agent, by the absolute common nominal marker *in*.

5.3 Locative Voice[14]

Bagobo-Klata has two irrealis locative-voice (LV) affixes: *-a* and *tam-*. As shown in (27), *-a* behaves like *-ɔ* because it triggers the deletion of a syllable, either an identical one or a penultima, and also causes the adjacent vowel to assimilate (/ɔ/ becomes [a]). On the other hand, *tam-* in (28) is another replacive affix; the only word-initial sounds it cannot nasally substitute for are stops /g/, semi-vowels /j, w/, and nasals /m, n, ŋ/.

(27)   Blay**a** nila neng ballas keng simbalay nila.
        blaj**a** nila nɛŋ ballas kɛŋ simbalaj nila
        b(ɔl)lɔj-**a**=nila   nɛŋ=ballas kɛŋ=simbalaj=nila
        give-**IRR.BV**=3PL.ERG GEN=rice   ABS=neighbor=3PL.GEN
        'Bibigyan nila ng bigas ang kapitbahay nila.'
        'They will give their neighbor rice.'

(28)   **Tam**oriya u nila klommô.
        tamɔɾija ʔu nila klɔmmɔʔ
        tam-(h)ɔ-ɾ-(d)ija=ʔu=nila   klɔmmɔʔ
        IRR.LV-DIR-DEM.DIST.OBL=1SG.ABS=3PL.ERG ADV.tomorrow
        'Bibisitahin nila ako bukas.'
        'They will pay me a visit tomorrow.'

---

[14]The term *locative* in this study encompasses not only the place where an entity is in or where something happens but also related semantic roles that serve as a metaphorical location such as source, "the entity from which something moves, either literally or metaphorically;" goal, "the entity toward which something moves, either literally or metaphorically;" and beneficiary, "the entity for whose benefit the action was performed" (Saeed, 2016, p. 151).

As exemplified in (29) and (30), *-an* is an LV affix in Tausug that encodes irrealis mood.

(29) Lutu**an** ako hi Firash piyanggang manuk.
  lutuʔ**an** ʔakɔ hi Firash pijaŋgaŋ manuk
  lutu-**(ʔ)an**=ʔakɔ   hi=Firash
  cook-**IRR.BV**=1SG.ABS ERG=Firash
  ø=p<ij>aŋgaŋ=ø=manuk
  GEN=<RLS.PFV.PV>roast on a spit=LNK=chicken
  'Ipagluluto ako ni Firash ng piyanggang manok.'
  'Firash will cook a chicken roasted on a spit for me.'

(30) Tanum**an** sa ini sin mag-uuma panggi'.
  tanum**an** sa ʔini sin magʔuʔuma paŋgiʔ
  tanum-**an**   sa   ʔini   sin=mag-ʔu-ʔuma
  plant-**IRR.LV** ADV.certainly DEM.PROX.ABS ERG=NOM-RED~farm
  ø=paŋgiʔ
  GEN=sweet potato
  'Tataniman ng magsasaka ito(ng lupa) ng kamote.'
  'A farmer will certainly plant sweet potato in this land.'

In Bagobo-Klata, the realis counterparts of *-a* and *tam-* are *bɔ-…-a* and *tamm-*, respectively. (31) shows that as opposed to *-ɔ*, *-a* co-occurs with *bɔ-* and does not reinstate the deleted syllable in (27). To express realis mood, the coda in *tam-* geminates, as in (32).

(31) **Bol**lay**a** nila neng ballas keng simbalay nila.
      bɔllaj**a** nila nɛŋ ballas kɛŋ simbalaj nila
      bɔ-l-(bɔl)lɔj-**a**=nila   nɛŋ=ballas kɛŋ=simbalaj=nila
      RLS-give-**BV**=3PL.ERG GEN=rice   ABS=neighbor=3PL.GEN
      'Binigyan nila ng bigas ang kapitbahay nila.'
      'They gave their neighbor rice.'

(32) **Tamm**oriya u nila gebulli.
      tammɔɾija=ʔu=nila gɛbulli
      tamm-(h)ɔ-ɾ-(d)ija=ʔu=nila   gɛbulli
      RLS.LV-DIR-DEM.DIST.OBL=1SG.ABS=3PL.ERG ADV.last night
      'Binisita nila ako kagabi.'
      'They paid me a visit last night.'

In Tausug, the LV affix *-an* also co-occurs with *<ij>* to express the perfective form of an LV-affixed verb in (33b) and (34b), while partial reduplication of the penultima is necessary for the imperfective form, as in (33a) and (34a).

(33) a. **Liyu**lutu**an** ako hi Firash piyanggang manuk.
          lijulutuʔ**an** ʔakɔ hi Firash pijaŋgaŋ manuk
          l<ij>u-lutu-**(ʔ)an**=ʔakɔ   hi=Firash
          <RLS>IPFV-cook-**BV**=1SG.ABS ERG=Firash
          ø=p<ij>aŋgaŋ=ø=manuk
          GEN=<RLS.PFV.PV>roast on a spit=LNK=chicken
          'Nilulutuan ako ni Firash ng piyanggang manok.'
          'Firash is cooking a chicken roasted on a spit for me.'

b. **Liy**utu**an** ako hi Firash piyanggang manuk.

lijutu**ʔan** ʔakɔ hi Firash pijaŋgaŋ manuk

l**<ij>**utu-**(ʔ)an**=ʔakɔ   hi=Firash

<RLS.PFV>cook-**BV**=1SG.ABS ERG=Firash

ø=p<ij>aŋgaŋ=ø=manuk

GEN=<RLS.PFV.PV>roast on a spit=LNK=chicken

'Nilutuan ako ni Firash ng piyanggang manok.'

'Firash cooked a chicken roasted on a spit for me.'

(34)   a. **Tiy**atanuman sa ini sin mag-uuma panggi".

tija tanum**an** sa ʔini sin magʔuʔuma paŋgiʔ

t**<ij>a**˗tanum-**an**   sa   ʔini

<RLS>IPFV˗plant-**LV** ADV.certainly DEM.PROX.ABS

sin=mag-ʔu˗ʔuma   ø=paŋgiʔ

ERG=NOM-RED˗farm GEN=sweet potato

'Tinataniman ng magsasaka ito(ng lupa) ng kamote.'

'A farmer is certainly planting sweet potato in this land.'

b. **Tiy**anuman sa ini sin mag-uuma panggi".

tijanum**an** sa ʔini sin magʔuʔuma paŋgiʔ

t**<ij>**anum-**an**   sa   ʔini

<RLS.PFV>plant-**LV** ADV.certainly DEM.PROX.ABS

sin=mag-ʔu˗ʔuma   ø=paŋgiʔ

ERG=NOM-RED˗farm GEN=sweet potato

'Tinaniman ng magsasaka ito(ng lupa) ng kamote.'

'A farmer certainly planted sweet potato in this land.'

As shown from (27) to (34), the co-indexed arguments are all semantically locative. *keng simbalay* 'the neighbor' in (27) and *ako* 'I' in (29)

are both beneficiaries. In (28), *u* is the goal toward which the agent *nila* moves, while in (30), *ini* is a location where sweet potatoes will be planted.

5.4 Instrument Voice

PAɴ *Si- 'instrument voice' can be said to have not been retained in Bagobo-Klata, but it compensates for the lack thereof through the causative affix *pɔ-*.[15] This affix has two allomorphs *pɔ-* and *p-*, both of which encode irrealis mood. As shown in (35), *pɔ-* attaches to roots whose word-initial sound is not a voiced glottal stop, while *p-* is a replacive affix that attaches only to roots, the base-initial consonant of which is a /ʔ/.

(35)   **Po**hulat no Marlon keng lapis ku.
      pɔhulat nɔ marlɔn kɛŋ lapis ku
      pɔ-hulat   nɔ=marlɔn   kɛŋ=lapis=ku
      IRR.CAUS-write ERG=Marlon ABS=pencil=1SG.GEN
      'Ipapansulat ni Marlon ang lapis ko.'
      'Marlon will use my pencil to write (something).'

---

[15]This strategy is also utilized in Bagobo-Klata's sister languages Blaan, Tboli, and Tëduray, where the causative affix compensates for the lack of an instrument voice affix. From a crosslinguistic perspective, in languages that clearly distinguish types of causatives, the affix, which is used to form productive (morphological) causatives, "may be recruited to fill gaps in the lexical domain" (Shibatani & Pardeshi, 2002).

(36) **P**epok no Ben neng kayyu konning badi.
      pɛpɔk nɔ bɛn nɛŋ kajju kɔnniŋ baːdiʔ
      p-(ʔ)ɛpɔk   nɔ=bɛn   nɛŋ=kajju kɔnni=ŋɔ=baːdiʔ
      IRR.CAUS-cut ERG=Ben GEN=tree   DEM.PROX.ABS=LNK=bolo
      'Ipapamputol ni Ben ng puno itong itak.'
      'Ben will use this bolo to cut a tree.'

In Tausug, there are two irrealis IV affixes: *hipaN-* and *hipag-*. *hipaN-*[16] is also a replacive affix that partially or fully assimilates to the base-initial sound in a root. As shown in (37), the homorganic nasal *N-* becomes an /n/ and replaces the word-initial sound if it is a voiceless alveodental fricative.

(37) **Hipan**ulat sin bata-bata' in pinsil ko.
      hipanulat sin bataʔ bataʔ ʔin pinsil kɔ
      hipaN-(s)ulat sin=bataʔ~bataʔ ʔin=pinsil=kɔ
      IRR.IV-write   ERG=child   ABS=pencil=1SG.GEN
      'Ipapansulat ng bata ang lapis ko.'
      'A child will use my pencil to write (something).'

As shown in (38) and (39), there are various forms in expressing realis mood in Bagobo-Klata. In (38), *pɔ-* triggers the base-initial sibilant in *sulat* 'to write' to geminate to encode realis mood. *pɔnn-*,[17] on the other hand, is the realis form of either *p-* or *pɔn-*.

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[16]The instrument voice affix *hipaN-* in Tausug has three allomorphs:

$$/\text{hipaN-}/ \rightarrow \begin{cases} \text{[hipam-] /} & \#\begin{bmatrix} \text{C, +BILABIAL, +STOP} \end{bmatrix} \\ \text{[hipan-] /} & \#\begin{bmatrix} \text{C, +ALVEODENTAL, +STOP} \end{bmatrix} \\ \text{[hipaŋ-] /} & \#\begin{bmatrix} \text{C, +VELAR, +STOP} \end{bmatrix} \end{cases}$$

[17]The dental nasal geminate in *pɔnn-* is the product of the affix order *pɔn-* and *-n*, the fossilized form left of the reflex of PAN *<in>.

(38) a. **Pobo**sulat no Marlon keng lapis ku.
       pɔbɔsulat nɔ marlɔn kɛŋ lapis ku
       pɔ-bɔ-sulat   nɔ=marlɔn   kɛŋ=lapis=ku
       CAUS-RLS-write ERG=Marlon ABS=pencil=1SG.GEN
       'Ipinansulat ni Marlon ang lapis ko.'
       'Marlon used my pencil to write (something).'

   b. **Pos**sulat no Marlon keng lapis ku.
       pɔssulat nɔ marlɔn kɛŋ lapis ku
       pɔ-s~sulat   nɔ=marlɔn   kɛŋ=lapis=ku
       CAUS-RLS~write ERG=Marlon ABS=pencil=1SG.GEN
       'Ipinansulat ni Marlon ang lapis ko.'
       'Marlon used my pencil to write (something).'

(39) **Ponn**epok no Ben neng kayyu konning badi.
      pɔnnɛpɔk nɔ bɛn nɛŋ kajju kɔnniŋ baːdiʔ
      pɔ-n~n-(ʔ)ɛpɔk nɔ=bɛn   nɛŋ=kajju kɔnni=ŋɔ=baːdiʔ
      CAUS-RLS~cut   ERG=Ben GEN=tree   DEM.PROX.ABS=LNK=bolo
      'Ipinamputol ni Ben ng puno itong itak.'
      'Ben used this bolo to cut a tree.'

In Tausug, the realis forms of the IV-affixed verbs both have *<ij>*. In (40a), the imperfective form is expressed through *paN-* and its CV reduplication, where *<ij>* is inserted. In (40b), the perfective form consists of *paN-* and *<ij>*.

(40) a. **Piyapan**ulat sin bata-bata' in pinsil ko.
          pijapanulat sin bataʔ bataʔ ʔin pinsil kɔ
          p\<ij\>a~paN-(s)ulat sin=bataʔ~bataʔ ʔin=pinsil=kɔ
          \<RLS\>IPFV~IV-write ERG=child   ABS=pencil=1SG.GEN
          'Ipinapansulat ng bata ang lapis ko.'
          'A child is using my pencil to write (something).'

      b. **Piyan**ulat sin bata-bata' in pinsil ko.
          pijanulat sin bataʔ bataʔ ʔin pinsil kɔ
          p\<ij\>aN-(s)ulat   sin=bataʔ~bataʔ ʔin=pinsil=kɔ
          \<RLS.PFV\>IV-write ERG=child   ABS=pencil=1SG.GEN
          'Ipinansulat ng bata ang lapis ko.'
          'A child used my pencil to write (something).'

5.5 Summary

Mood in Bagobo-Klata and Tausug operate in terms of a binary system
where realis constructions are distinguished from irrealis ones via the
presence of the reflex of PAN *\<in\>, its innovation, or a combination of
both. In both languages, mood is morphologically expressed through
a set of affixes that encode voice, (aspect,) valency, and transitivity.
Besides *bɔ-*, other significant syntactic innovations Bagobo-Klata did
are the replacement of PAN *Si- with the causative affix *pɔ-* to express
instrument voice, and gemination to encode realis mood with certain
verbal affixes such as *pɔ-*.

    Ultimately, the mood systems in these languages are non-joint be-
cause there is no need for them to co-occur with other grammatical
markers. However, in Bagobo-Klata, the realis mood marker co-occur

with particles such as /pɔ/ and /dɔ/ to express imperfective and perfective aspects, respectively.

6 Propositional Modality

This section discusses the expressions of propositional modality in Bagobo-Klata and Tausug and their morphosyntactic and semantic features. It is divided into the following: speculative markers in §6.1, assumptive markers in §6.2, evidential markers in §6.3, and veridical markers in §6.4.

6.1 Speculative Markers

Speculation can be expressed through modal particles in Bagobo-Klata and Tausug. These markers are used to describe events that are probable or possible and are speculated by the speaker. In Bagobo-Klata, eight modal particles—*agô*, *haddo'k*, *monong*, *pihu*, *tabag*, *torô*, *miling*, and *gayu*—are used to encode the modal sense of speculation. As will be seen in the following example sentences, these speculative markers generally differ in terms of their syntactic distribution and scalar value.

The Bagobo-Klata modal particles *agô* in (41) and (42) and *haddo'k*[18] in (43) are semantically and morphosyntactically interchangeable. Both markers occur only clause-initially and do not host any clitics.

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[18]This modal particle is short for *haddo ko*, which literally means 'know if' or 'baka kung' in Tagalog. For ease of articulation, *ko* cliticizes to *haddo* (C. B. Icdang, personal communication, February 8, 2023).

(41)   **Agô** klommô po hiya makka.
       ʔagɔʔ klɔmmɔʔ pɔ hija makka
       ʔagɔʔ klɔmmɔʔ=pɔ=hija   m-(t)akka
       MOD   ADV.tomorrow=PRT=3SG.ABS IRR.AV-arrive
       'Baka bukas pa siya dumating.'
       'He'll probably arrive tomorrow.'

(42)   **Agô** anda do salapi niya.
       ʔagɔʔ ʔandaʔ dɔ salapi nija
       ʔagɔʔ ʔandaʔ=dɔ   salapi=nija
       MOD   NEG.EXIST=PRT money=3SG.GEN
       'Baka wala silang pera.'
       'They probably don't have money.'

(43)   **Haddo'k** kodummo keng angngâ.
       haddɔk kɔdummɔ kɛŋ ʔaŋŋaʔ
       haddɔ=kɔ kɔ-dummɔ   kɛŋ=ʔaŋŋaʔ
       MOD   IRR.POT-stumble ABS=child
       'Baka madapa ang bata.'
       'The child will probably stumble (on something).'

The Tausug modal particles *maray'* in (44) and (45), *kalu-kalu* in (46), and *hatiku* in (47), on the other hand, behave like *agô* and *haddo'k*. However, *kalu-kalu* is shown below to host a (pronominal) clitic.

(44)　**Maray'** dumatung hi Jeff.
　　　maraji? dumatuŋ hi dʒɛf
　　　ma-r-(d)aji? d<um>atuŋ　　hi=dʒɛf
　　　MOD　　　　<IRR.AV>arrive ABS=Jeff
　　　'Baka dumating si Jeff.'
　　　'Jeff will probably arrive.'

(45)　**Maray'** magbagay sila.
　　　maraji? magbagay sila
　　　ma-r-(d)aji? mag-bagay=sila
　　　MOD　　　　REL-friend=3PL.ABS
　　　'Baka magkaibigan sila.'
　　　'They might be friends.'

(46)　**Kalu-kalu** aku makauwi' kinsum.
　　　kalukalu ?aku maka?uwi? kinsum
　　　kalu~kalu=?aku maka-?uwi?　　　kinsum
　　　MOD=1SG.ABS　　IRR.ABIL-come home ADV.tomorrow
　　　'Siguro makakauwi ako bukas.'
　　　'Perhaps I will be able to come home tomorrow.'

(47)　**Hatiku** wala' niya kiyaingatan.
　　　hatiku wala? nija kija?iŋatan
　　　hatiku wala?=nija　　k<ij>a-?iŋat-an
　　　MOD　NEG=3SG.ERG <RLS>STEM-know-LV
　　　'Siguro hindi niya nalaman.'
　　　'Perhaps s/he did not know.'

Of the speculative markers discussed thus far, only *maray'* and *kalu-kalu* in Tausug have traceable lexical sources, i.e., *day'* 'a comparatively

short time, soon' and *kalu-kalu* 'to be uncertain of something' respectively (Hassan et al., 1994). The modal meaning expressed by *maray'* arose from the indefiniteness conveyed by the lexical use of *day'-day'* in (48), which can be distinguished from its modal counterpart because *ma-* partially grammaticalized *day'*.

(48)   **Day'-day'** dakuman maubus na in hinang ku.
       daɟiʔdaɟiʔ dakuman maʔuβus na ʔin hinaŋ ku
       daɟiʔ~daɟiʔ=dakuman ma-ʔuβus=na   ʔin=hinaŋ=ku
       soon=PRT   POT.IRR-finish=PRT ABS=work=1SG.GEN

       'Malapit na rin matapos itong trabaho ko.'
       'It will not be long, and I will finish my work.' (Hassan et al., 1994)

The source of *kalu-kalu*'s modal meaning is straightforward, as exemplified in (46). Its use is undoubtedly modal when it is the leftmost element in a clause, but when a verbal affix is attached to *kalu-kalu* as in (49), its use is lexical.

(49)   Ayaw kaw mag**kalu-kalu** bang kita' mu.
      ʔajaw kaw mag**kalukalu** baŋ kiːtaʔ mu
      ʔajaw=kaw   mag-**kalu~kalu** baŋ   kiːtaʔ=mu
      NEG=2SG.ABS IRR.AV-**uncertain** COND RLS.PV=2SG.ERG
      'Huwag kang magdalawang-isip kung nakita mo.'
      'If you saw it, do not be uncertain.' (Hassan et al., 1994)

Unlike *agô* and *haddo'k*, *pihu* and *monong* are more flexible, occurring clause-medially in (50) and (53) and clause-finally in (51) and (52). It

must be noted that in Bagobo-Klata, these two markers can be used in polar questions.

(50)   Be appat **pihu** keng angnga niya.
         bɛ ʔappat **pihu** kɛŋ ʔaŋŋaʔ nija
         bɛ=ʔappat=**pihu** kɛŋ=ʔaŋŋaʔ=nija
         ADV=four=**MOD**   ABS=child=3SG.GEN
         'Mga apat siguro ang anak niya.'
         'S/he probably has about four children.'

(51)   Kokkoli ung gele ro **pihu**.
         kɔkkɔli ʔuŋ gɛlɛʔ ɾɔ **pihu**
         kɔ-k~kɔli=u=ŋɔ   gɛlɛʔ=ɾ-(d)ɔ=**pihu**
         POT-RLS~1SG.ABS=LNK enough=PRT=**MOD**
         'Nasabi ko na tama na siguro.'
         'I was able to say that (it was) probably enough already.'

(52)   Mula **monong**.
         mula **mɔnɔŋ**
         m-(ʔ)ula=**mɔnɔŋ**
         IRR.AV-rain=**MOD**
         'Uulan siguro.'
         'It might rain.'

(53)   Bonnula **monong** gibulli?
         bɔnnula **mɔnɔŋ** gibulli
         bɔnn-(ʔ)ula=**mɔnɔŋ** gibulli
         RLS.AV-rain=**MOD**   ADV.last night
         'Umulan ba kagabi?'
         'Did it rain last night?'

Furthermore, *tabag*, *torô*, *miling*, and *gayu* in Bagobo-Klata and *biya'* in Tausug are also markers of speculation. The kind of speculation these markers express is based on "analogic evidence," in which the speaker assesses or evaluates, according to some prior knowledge, the similarity between "the present state of affairs [situation X] and some previous state of affairs [situation Y]" (Vondiziano, 2019, p. 51). Hence, these markers can be both epistemic and evidential, as the judgment expressed from (54) to (61) are apparently supported by evidence, especially in (56), in which the speculation, which praises how the addressee has not aged much, is quite strong.

Morphosyntactically, *tabag*, *gayu neng*, *miling*, and *biya'* are restricted to a clause-initial position, and except for *biya'*, they cannot host any clitic.

(54) **Gayu** neng moow hiya.
      gaju nɛŋ mɔʔɔw hija
      gaju=nɛŋ m-(l)ɔʔɔw=hija
      MOD=LNK IRR.AV-walk=3SG.ABS
      'Parang aalis siya.'
      'S/he is perhaps leaving.'

(55) **Tabag** no Edeng ke.
      tabag nɔ ɛdɛŋ kɛjjɛʔ
      tabag nɔ=ɛdɛŋ   kɛjjɛʔ
      MOD   GEN=Edeng DEM.MED.ABS
      'Parang kay Eden iyan.'
      'That is probably Edeng's.'

(56) Duruggoy to rong indi hokkito piru **miling** indi ko bottuwo.
      duɾuggɔj tɔ ɾɔŋ ʔindiʔ hɔkkiːtɔʔ piɾu **miliŋ** ʔindiʔ kɔ bɔttuːwɔ
      du~ɾ-(d)uggɔj=tɔ=ɾ-(d)ɔ=ŋɔ=ʔindiʔ   hɔ-k~kiːtɔʔ piɾu
      INTS-long=1PL.EXCL.ABS=PRT=LNK=NEG RLS.RECP-see CONJ
      miliŋ ʔindiʔ=kɔ   bɔ-t~tuːwɔ
      MOD NEG=2SG.ABS POT-RLS~age
      'Napakatagal na naming hindi nagkita, ngunit parang hindi siya
      tumanda.'
      'We haven't seen each other for a long time, yet you seem to
      have not aged at all.'

(57) **Biya'** daindi siya kaina.
      biyaʔ daʔindi sija kaʔina
      biyaʔ daʔindi=sija   kaʔina
      MOD PROX.LOC=3SG.ABS ADV.earlier
      'Parang nandito siya kanina.'
      'It seems s/he was here earlier.'

(58) **Biya'** kaw kimayug.
      biyaʔ kaw kimajug
      biyaʔ=kaw   k<im>ajug
      MOD=2SG.ABS <RLS.PFV.AV>thin
      'Parang pumayat ka.'
      'It seems that you got thin.'

Among the speculative markers discussed here, *torô* is the most flexible because it occurs in all clausal positions: initial in (59), medial in (60), and final in (61). It must be noted that when used clause-initially, both *torô* and *gayu* are obligatorily followed by *neng*.

(59) **Torô neng** mula.
ᴛᴏʀᴏʔ **nɛŋ** mula
ᴛᴏʀᴏʔ=**nɛ**ŋ=m-(ʔ)ula
MOD=LNK=IRR.AV-rain
'Parang uulan.'
'It seems that it will rain.'

(60) Pongngo ro **torô** hilang kommaa.
pɔŋŋɔ rɔ **tɔrɔʔ** hilaŋ kɔmmaʔa
pɔŋŋɔ=rɔ=**tɔrɔʔ**=hila=ŋɔ   k<ɔmm>aʔa
done=PRT=**MOD**=3PL.ABS=LNK <RLS.AV>eat
'Tapos na yata sila kumain.'
'I think they are done eating.'

(61) Mula **toro**.
mula **tɔrɔʔ**
m-(ʔ)ula=**tɔrɔʔ**
IRR.AV-rain=**MOD**
'Uulan yata.'
'It seems that it will rain.'

Of the four additional speculative markers, only *gayu* and *biya'* have traceable lexical origins. Both mean "like, similar" in their respective languages, and as shown in (62) and (63), these markers are lexically used to compare similarity through visual analogy. The semantic change they have undergone to acquire modal meanings is quite straightforward, that is, extending the analogic comparison between the current state of affairs and the previous one.

(62) Hog**gayu** niya keng boyo neng omo ole neng ino?
hɔg**gaju** nija kɛŋ bɔjɔʔ nɛŋ ʔɔmɔ ʔɔlɛʔ nɛŋ ʔinɔ
hɔ-g-**gaju**=nija   kɛŋ=bɔjɔʔ=nɛŋ=ʔɔmɔ=ʔɔlɛʔ=nɛŋ=ʔinɔ
COM-**like**=2SG.GEN ABS=face=GEN=father=CONJ=GEN=mother
'Kamukha ba niya ang tatay or nanay niya?'
'Does s/he look like her/his father or mother?'

(63) **Biya'** na kaw taymanghud ku.
biyaʔ na kaw tajmaŋhud ku
biyaʔ=na=kaw   tajmaŋhud=ku
ADJ=LNK=2SG.ABS sibling=1SG.GEN
'Parang kapatid na kita.'
'You are like a sibling to me.'

In terms of scalarity, speculation lacks certainty and is therefore considered to be generally weak, so *agô*, *haddo'k*, *pihu*, and *monong* in Bagobo-Klata and *maray'*, *kalu-kalu*, and *hatiku* in Tausug fall on the weak section of the scalar model. However, *tabag*, *torô*, *miling*, and *gayu* in Bagobo-Klata and *biya'* in Tausug occupy a position that is deemed less weak because they express a kind of speculation relying on the assessment of two situations, present [X] and prior [Y] ones.

6.2 Assumptive Markers

In Bagobo-Klata and Tausug, an assumption that is contrary to the observed reality is expressed via modal verbs *pane* and *(pang)kannal*, respectively; in other words, epistemic assumption is all about a speaker's counter-expectation. In terms of scalarity, it assumes a high probability

that an event will have happened and, hence, falls on the strong section of the scalar model.

As shown from (64) to (66), the events turned to be contrary to the speaker's expectation. For instance, in (64), Celia's wedding would not happen tomorrow, while in (65), the addressee did not arrive.

(64) **Pane** ku klommô keng tabbad no Celia.
      pa:nɛ ku klɔmmɔʔ kɛŋ tabbad nɔ sɛlja
      pa:nɛ=ku   klɔmmɔʔ   kɛŋ=tabbad=nɔ=sɛlja
      MOD=1SG.GEN ADV.tomorrow ABS=wedding=GEN=Celia
      'Akala ko bukas ang kasal ni Celia.'
      'I thought tomorrow would be Celia's wedding.'

(65) **Pangannal** ku dumatung kaw bihayaun.
      paŋannal ku dumatuŋ kaw bihajaʔun
      paN-kannal=ku <um>datuŋ=kaw   bihajaʔun
      MOD=1SG.GEN   <IRR.AV>arrive=2SG.ABS ADV.today
      'Akala ko darating ka ngayon.'
      'I thought you would arrive today.'

(66) **Kannal** ku mga naghati na kitaniyu.
      kannal ku maŋa nagha:ti na kitaniju
      kannal=ku   maŋa nag-ha:ti=na   kitaniju
      MOD=1SG.GEN PL   RLS.AV-understand=PRT 1PL.INCL.ABS
      'Akala ko nagkakaunawaan tayo.'
      'I thought we already had an agreement/mutual understanding.'

Among the markers of epistemic modality in Bagobo-Klata and Tausug, *pane* and *(paN-)kannal* are the only modal verbs, both of which

are morphologically defective, that is, they do not take any verbal affix. As can be observed in example sentences above, they are all structurally similar in that they consist of a defective modal verb followed by a genitive personal pronoun or a genitively marked noun and a complement clause that is optionally introduced by a linker.[19]

Unlike *pane*, *(paN-)kannal* has a possible lexical source *pangannal* 'mistaken thought or presumption' that ultimately derives from *kannal* 'to think seriously' (Hassan et al., 1994). The lexical use of *kannal* is exemplified in (67).

(67)   Subay mu **kannal**un in pag-ammal ibadat mu.
       subaj mu **kannal**un ʔin pagʔammal ʔibadat mu
       subaj=mu   **kannal**-un
       MOD=2SG.ERG **think seriously**-IRR.PV
       ʔin=pag-ʔammal=ø=ʔibadat=mu
       ABS=NOM-practice=GEN=spiritual obligation=2SG.GEN
       'Dapat mong pag-isipan nang maigi ang iyong
       buhay-espirituwal.'
       'You should think seriously of your spiritual life.' (Hassan et al., 1994)

6.3 Evidential Markers

In most Philippine languages, there is one evidential marker, typically a reported one, and this is also true for Bagobo-Klata and Tausug. The evidential markers in these languages are both reported, that is, the evidence for the proposition's factual status comes from someone else.

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[19]In Tausug, the linker is phonetically null.

As shown from (68) to (71), the evidence for these propositions is quoted from someone else's word. For instance, in (68), the Bagobo-Klata evidential marker *gâ* is used to indicate that the evidence for the proposition that the winner is a child and not a lad is from someone else, not the speaker nor the addressee. Moreover, quoting information one has not seen, heard, or known constitutes weak evidence, so in terms of scalarity, a reported evidential marker is weak.

(68)   Angnga **gâ** keng niddo, bokko huddu.
    ʔaŋŋaʔ **gaʔ** keng niddɔʔ bɔkkɔ huddu
    ʔaŋŋaʔ=**gaʔ** keng=n-(m)-(t)iddɔʔ bɔkkɔ=huddu
    child=**MOD**   ABS=RLS-AV-stand   NEG=lad
    'Bata raw ang nanalo, hindi binata.'
    'It is said that the one who've won is a child, not a lad.'

(69)   Piyag-amahan **kunû** siya sin mastal.
    pijag-ʔamahan **kunuʔ** sija sin mastal
    p<ij>ag-ʔama-(h)an=**kunuʔ**=sija   sin=mastal
    <RLS>STEM-anger-LV=**MOD**=3SG.ABS ERG=teacher
    'Sinigawan daw siya ng guro.'
    'It is said that a teacher scolded him/her.'

Moreover, in Bagobo-Klata, its evidential marker has two forms—the shorter one in (70) and the longer one in (71)—but there is no semantic or morphosyntactic difference between these forms.

(70) Immo **gâ** keng bisita nila?
      ʔimmɔ **gaʔ** kɛŋ bisita nila
      ʔimmɔ=**gaʔ** kɛŋ=bisita=nila
      QP.who=**MOD** ABS=visitor=3SG.GEN
      'Sino raw ang bisita nila?'
      'Who is their visitor?'

(71) Dayt **gammâ**?
      dajt **gammaʔ**
      dajt=**gammaʔ**
      QP.what=**MOD**
      'Ano raw?'
      'What?'

6.4 Veridical Markers

Like Yami, Bagobo-Klata and Tausug have veridical markers[20]—*hirê* and *tuud*—that express "an increased intensity of the truth of the proposition, something like the adverbial use of *really* in English" (Payne, 1997, pp. 254–255). They are usually used to express absolute, unchallenged commitment to truth, so on the scalar model these markers fall on the asserted section.

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[20]Vondiziano (2019) added these markers to account for expressions of asserted epistemic modality, because in Palmer (2001), expressions of propositional modality are just either possible (weak) or necessary (strong). There is no modal category to explain modal markers with strong assertion such as *talaga* (Tagalog) and *gyud* (Cebuano).

For example, in (72) and (73), the speakers in both languages are undoubtedly certain that Juan is selfish that he cannot give a single coin and that the addressee is indeed slim. There is no room for challenge.

(72)   Tagaw **hirê** ho Juan agad hotung pisu ombo niyang molloy.
        tagaw **hirɛʔ** hɔ Juan ʔagad hɔtuŋ pisɔ ʔɔmbɔ nijaŋ mɔllɔj
        tagaw=**hirɛʔ** hɔ=Juan   ʔagad hɔtu=ŋɔ=pisɔ
        selfish=MOD ABS=Juan CONJ one=LNK=coin
        ʔɔmbɔ=nija=ŋɔ=m-(b)ɔllɔj
        NEG=3SG.GEN=LNK=IRR.CONT.AV-give
        'Madamot talaga si Juan dahil kahit ni piso ayaw niya magbigay.'
        'Juan is really selfish because he does not want to give a single coin.'

(73)   Makayug kaw **tuud**.
        makajug kaw **tuʔud**
        ma-kajug=kaw=**tuʔud**
        STAT-slim=2SG.ABS=MOD
        'Mapayat ka talaga.'
        'You are really slim.'

Morphosyntactically, both markers behave like clitics in that they attach to the clause-initial element, but if the core argument is pronominalized, as in (73) and (74), these markers follow it.

(74)   Proud u **hirê** ngo Bagobo-Klata.
        proud ʔu **hirɛʔ** ŋɔ bagɔːbɔ klata
        proud=ʔu=**hirɛʔ**=ŋɔ=bagɔːbɔ klata
        proud=1SG.ABS=**MOD**=LNK=Bagobo-Klata
        'Ipinagmamalaki ko talaga na Bagobo-Klata ako.'
        'I am really proud (to be) Bagobo-Klata.'

   However, when these markers are used in polar questions, they cast doubt. For instance, in (75), the speaker doubts Ana's beauty, while in (76), the speaker doubts whether addressee has seen the person being talked about or not.

(75)   Maligonnoy **hirê** ho Ana?
        maligɔnnɔj **hirɛʔ** hɔ Ana
        mali-gɔnnɔj=**hirɛʔ** hɔ=Ana
        good-beauty=**MOD** ABS=Ana
        'Maganda ba talaga si Ana?'
        'Is Ana really beautiful?'

(76)   Siya **tuud** in kiyakitaan mo?
        sija **tuʔud** ʔin kijakitaʔan mɔ
        sija=**tuʔud**   ʔin=k<ij>a-kitaʔ-an=mɔ
        3SG.ABS=**MOD** ABS=<RLS>STEM-see-BV=2SG.ERG
        'Siya ba talaga ang nakita mo?'
        'Is s/he really the one you saw?'

   Between the two markers discussed here, only *tuud* can be used lexically. Shown in (77) and (78) are its verbal and adjectival uses. Apparently, the modal meaning of this marker arose from its adjectival meaning.

(77)   Ayaw kaw mag-ama wala ku **tiyuud**.

      ʔajaw kaw mag-ʔama wala ku **tijuʔud**

      ʔajaw=kaw   mag-ʔama

      NEG=2SG.ABS IRR.AV-anger

      wala=ku=**t\<ij>uʔud**-ø

      NEG=1SG.ERG=**\<RLS.PFV>do (something) intentionally**-PV

      'Huwag kang magalit. Hindi ko sinadyang gawin.'

      'Don't be angry, I didn't do it intentionally.' (Hassan et al., 1994)

(78)   Bukun ma**tuud** in baya' niya kaymu.

      bukun ma**tuʔud** ʔin baja' nija kajmu

      bukun ma-**tuʔud**   ʔin=baja'=nija   kajmu

      NEG   ADJ-**genuine** ABS=interest=3SG.GEN 2SG.OBL

      'Hindi tunay ang interes niya sa'yo.'

      'Her interest in you is not genuine.' (Hassan et al., 1994)

6.5 Summary

In this section, the expressions of propositional modality in Bagobo-Klata and Tausug have been discussed. Shown in Table 4 are the forms these expressions take: speculative (both epistemic and evidential), veridical, and reported markers are all modal particles, while the assumptive ones are modal verbs that are morphologically defective. It can be noticed that for each category in both languages, the corresponding expressions are similar and that the modal sense of speculation can be both epistemic and evidential.

    Regarding morphosyntax, these markers behave differently from one another. *agô*, *haddo'k*, *tabag*, *miling*, *gayu*, *maray'*, *kalu-kalu*, and *hatiku*

Table 4. Propositional Modality in Bagobo-Klata and Tausug

	Epistemic			Evidential	
	Speculative	Assumptive	Veridical	Speculative	Reported
Bagobo-Klata	agô, haddo'k, pihu, monong, tabag, torô, miling, gayu	pane	hirê	tabag, torô, gayu	gammâ, gâ
Tausug	maray', kalu-kalu, hatiku, biya'	panannal, kannal	tuud	biya'	kunu'

are restricted clause-initially, while *pihu*, *monong*, and *torô* are more flexible in that they occur in all clause positions and cliticize to a clause-initial element, which is typically a (verbal or non-verbal) predicate. Evidential markers are also phonologically dependent on a sentence-initial element. Assumptive markers are morphologically defective verbs that require genitive arguments and a complement clause introduced by a linker.

Shown in Figure 2 are the relative positions of expressions of propositional modality in Bagobo-Klata and Tausug. Noticeably, the corresponding expressions of propositional modality in both languages fall on the same sections.

TAUSUG

kunu'

kalu-kalu
hatiku
maray'   biya'   (pang)kannal   tuud

WEAK   **STRONG**   **ASSERTED**

agô   torô   pane   hirê
haddo'k   tabag
monong   gayu
pihu   miling

ga(mmâ)

Figure 2. Scalar Model of Expressions of Propositional Modality in Bagobo-Klata and Tausug

7 Event Modality

This section discusses the expressions of event modality in Bagobo-Klata and Tausug: abilitative and potentive modalities in §7.1, imperative affixes in §7.2, desiderative modality in §7.3, obligation and suggestion in §7.4, and permission in §7.5.

7.1 Abilitative/Potentive Affixes

Similar to most Philippine languages, abilitative and potentive modalities in Bagobo-Klata and Tausug are expressed via modal affixes.[21]

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[21]The term *modal* is used here, instead of *mood*, to signify that modal systems, which abilitative, potentive, and imperative affixes belong to, are independent of the mood system in a given language.

Unlike the previous modal categories, ability and potentiality are not scalar in nature, but binary. Moreover, these modalities are encoded by separate affixes, as shown in Table 5.

Table 5. Abilitative and Potentive Affixes in Bagobo-Klata and Tausug

	Bagobo-Klata		Tausug		
	IRR	RLS	CONT	IPFV	PFV
Abilitative	kɔ-	kɔ-C~	maka-	naka-CV~	naka-
Potentive	kɔ-, mɔ-	kɔ-C~, bɔ-C~	ma-	na-CV~	na-

Semantically, abilitative affixes encode both participant-internal and participant-external modalities. In Bagobo-Klata, *kɔ-* encodes participant-internal modality in (79) and participant-external abilitative modality in (80). As shown in (79), Bagobo-Klata employs the partially grammaticalized modal verb *kotowû* to express inherent ability like speaking a language.

(79) **Kotowû** u koli neng Bagobo-Klata.
       kɔtɔwuʔ ʔu kɔli nɛŋ bagɔ:bɔ klata
       kɔ-tɔwuʔ=ʔu   kɔli   nɛŋ=bagɔ:bɔ klata
       IRR.ABIL-**intelligent**=1SG.ABS speak GEN=Bagobo-Klata
       'Marunong ako magsalita ng Bagobo-Klata.'
       'I can speak Bagobo-Klata.'

(80) exemplifies ability that is determined by external factors. For instance, the addressee's ability to buy a new pair of shoes probably

depends on certain circumstances such as financial capacity and avail-ability.

(80)   **Ko**bolli ko ro neng lammi ngo sapatos?
      kɔbɔlli kɔ ɾɔ nɛŋ lammiŋ sapatɔs
      kɔ-bɔlli=kɔ=ɾ-(d)ɔ   nɛŋ=lammi=ŋɔ=sapatɔs
      IRR.ABIL-buy=2SG.ABS=PRT GEN=new=LNK=shoes
      'Makakabili ka ba ng bagong pares ng sapatos?'
      'Can you buy a new pair of shoes?'

In Tausug, *maka-* is used to express both inherent and external abili-ties, as shown in (81) and (82).

(81)   **Maka**bissara hi Jeff Tausug.
      makaβissara hi dʒɛf Tausug
      maka-β[22]-(b)issara hi=dʒɛf ø=Tausug
      IRR.ABIL-speak   ABS=Jeff GEN=Tausug
      'Marunong magsalita ng Tausug si Jeff.'
      'Jeff can speak Tausug.'

(82)   **Maka**kaun sila mangga ha Cebu.
      makakaʔun sila maŋga ha sɛβu
      maka-kaʔun=sila   ø=maŋga   ha=sɛβ-(b)u
      IRR.ABIL-eat=3PL.ABS GEN=mango OBL=Cebu
      'Makakakain sila ng mangga sa Cebu.'
      'They can eat mangoes in Cebu.'

kɔ- can also be used to express potentive modality. As shown in (83), it is possible to finish the work.

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[22]In Tausug, /b/ undergoes the morphophonological process of spirantization (i.e., change from oral stops to fricativized ones) between vowels, hence becoming [β].

(83)   **Ko**pongngo ro nila keng inang.
      kɔpɔŋŋɔ ɾɔ nila kɛŋ ʔinaŋ
      kɔ-pɔŋŋɔ=r-(d)ɔ=nila   kɛŋ=ʔinaŋ
      IRR.POT-finish=PRT=3PL.GEN ABS=work
      'Matatapos na nila ang trabaho.'
      'They will be able to finish the work.'

    To encode potentive modality, Bagobo-Klata and Tausug employ *mɔ-* and *ma-*, respectively. The events from (84) to (85) express potentiality, depending on certain factors. For instance, in (84), it is possible for the person being talked about to go hungry should there be no food, while in (85), it is possible for Pipin to get lost.

(84)   **Mo**witi ho Ben kay anda niya mokaa.
      mɔwiti hɔ bɛn kaj ʔandaʔ nija mɔkaʔa
      mɔ-witi   hɔ=bɛn   kaj   ʔandaʔ=nija
      IRR.POT-hungry ABS=Ben CONJ NEG.EXIST=3SG.GEN
      mɔ-kaʔa
      IRR.POT-eat
      'Magugutom si Ben dahil wala siyang makain.'
      'Ben will be hungry because he does not have anything to eat.'

(85)   Maray' **ma**lawa' hi Pipin.
      maɾajiʔ **ma**lawaʔ hi Pipin
      ma-ɾ-(d)ajiʔ **ma**-lawaʔ   hi=Pipin
      MOD   IRR.POT-lose one's way ABS=Pipin
      'Baka maligaw si Pipin.'
      'Pipin might get lost.'

What have been discussed thus far in this subsection are the irrealis forms of abilitative and potentive affixes only. Shown in (86), (87), and (88) are the realis counterparts of such affixes in (80), (82), and (84).

(86)   **Kob**bolli ko ro neng lammi ngo sapatos?
        kɔbbɔlli kɔ ɾɔ nɛŋ lammiŋ sapatɔs
        kɔ-b-bɔlli=kɔ=ɾ-(d)ɔ   nɛŋ=lammi=ŋɔ=sapatɔs
        ABIL-RLS-buy=2SG.ABS=PRT GEN=new=LNK=shoes
        'Nakabili ka ba ng bagong pares ng sapatos?'
        'Were you able to buy a new pair of shoes?'

(87)   **Naka**kaun sila mangga ha Cebu.
        nakakaʔun sila maŋga ha sɛβu
        n-(m)aka-kaʔun=sila   ø=maŋga   ha=sɛβ-(b)u
        RLS.PFV-ABIL-eat=3PL.ABS GEN=mango OBL=Cebu
        'Nakakain sila ng mangga sa Cebu.'
        'They were able to eat mangoes in Cebu.'

(88)   **Bow**witi ho Ben kay anda niya mokaa.
        bɔwwiti hɔ bɛn kaj ʔandaʔ nija mɔkaʔa
        bɔ-w-witi   hɔ=bɛn kaj ʔandaʔ=nija
        RLS.POT-hungry ABS=Ben CONJ NEG.EXIST=3SG.GEN
        mɔ-kaʔa
        IRR.POT-eat
        'Nagutom si Ben dahil wala siyang makain.'
        'Ben went hungry because he did not have anything to eat.'

Finally, regarding transitivity, Bagobo-Klata and Tausug abilitative affixes are generally intransitive, while the potentive ones are transitive

and can co-occur with NAV affixes. However, if used to express adversative verbs as in (88), the potentive affix is intransitive because only the privileged syntactic argument is affected.

7.2 Imperative Affixes

Imperatives are one type of directives,[23] specifically, second-person commands. It must be noted that from a terminological standpoint, they are different from first-person or third-person commands or jussives. In essence, imperatives are authoritative as they emanate "from someone in authority, which, therefore, does not expect non-compliance" (Palmer, 2001, p. 80). Hence, they are highly asserted in terms of scalarity.

Table 6. Imperative Affixes in Bagobo-Klata and Tausug

Voice	Bagobo-Klata		Tausug	
	Affirmative	Negative	Affirmative	Negative
Actor	ø-	ʔijaʔ…m-	ø	ʔajaw…m-
Patient	-ø	ʔijaʔ…-ø	-a, -an	ʔajaw…-a, ʔajaw…-an
Locative	-a	ʔijaʔ…-a	-i	ʔajaw…-i
Instrumental	p(ɔ)-	ʔijaʔ…p(ɔ)-	hipaN-	ʔajaw…hipaN-

Table 6 shows imperative affixes in Bagobo-Klata and Tausug. It can be noticed that these affixes also inflect for voice and that they can be affirmative and negative. Negative imperatives are also called prohibitives; in these constructions, the imperative affix obligatorily

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[23]According to Searle (1983), directives are one of the five basic categories of illocutionary acts, "where we try to get them do things" (p. 166).

co-occurs with a negative particle—*iya* in Bagobo-Klata and *ayaw* in Tausug.

In both affirmative and negative AV imperative constructions in Bagobo-Klata, as shown in (89) and (90), the imperative affix is phonetically null, while the participant being commanded in (89) and prohibited in (90).

(89)   **Kaa** kong prutas, nata, olê vitamins.

  kaʔa kɔ nɛŋ prutas naːta ʔɔlɛʔ vaɪtamins

  ø-kaʔa=kɔ nɛŋ=prutas=naːta=ʔɔlɛʔ=vaɪtamins

  IMP.AV-eat=2SG.ABS GEN=fruit=vegetable=CONJ=vitamins

  'Kumain ka ng prutas, gulay, at bitamina.'

  'Eat fruits, vegetables, and vitamins.'

(90)   **Iyâ** ko **kaa**ng prutas, nata, olê vitamins.

  ʔijaʔ kɔ **kaʔa** nɛŋ prutas naːta ʔɔlɛʔ vaɪtamins

  ʔijaʔ=kɔ **ø-kaʔa=nɛŋ=prutas=naːta=ʔɔlɛʔ=vaɪtamins**

  NEG=2SG.ABS IMP.AV-eat=GEN=fruit=vegetable=CONJ=vitamins

  'Huwag kang kumain ng prutas, gulay, at bitamina.'

  'Do not eat fruits, vegetables, and vitamins.'

In affirmative AV imperative constructions in Tausug, the affix is also phonetically null. On the other hand, in (92), in negative AV constructions in Tausug, the affix is *m-*, while the participant being prohibited is not omitted in (92), as opposed to the one being commanded in (91).

(91) **Ig** na kaw. Mabaya' na ako matug.
      ʔ**ig** na kaw maβajaʔ na ʔakɔ matug
      ø-ʔig=na=kaw   ma-β-(b)ajaʔ=na=ʔakɔ
      IMP.AV-leave=PRT=2SG.ABS MOD=PRT=1SG.ABS
      ma-tug
      IRR.POT-sleep
      'Umalis ka na. Gusto ko na matulog.'
      '(You) leave now (because) I want to sleep.'

(92) **Ayaw** kaw **m**ig.
      ʔ**ajaw** kaw **m**ig
      ʔ**ajaw**=kaw   **m-**(ʔ)ig
      NEG=2SG.ABS IMP.AV-leave
      'Huwag kang umalis.'
      'Do not leave.'

As can be observed in (93) and (94), the AV and PV imperative affixes in Bagobo-Klata are both phonologically null, but the only difference between them is that in AV imperative constructions, the agent being commanded is absolutive, while in PV ones, the agent is ergative.

(93) **Donow** mo hila.
      dɔnɔw mɔ hila
      dɔnɔw-**ø**=mɔ=hila
      wake up-**IMP.PV**=2SG.ERG=3PL.ABS
      'Gisingin mo sila.'
      '(You) wake them up.'

(94)　**Iyâ** mo **donow** hila.

　　　ʔijaʔ mɔ **dɔnɔw** hila

　　　ʔijaʔ=mɔ　　　dɔnɔw-**ø**=hila

　　　NEG=2SG.ERG wake up-**IMP.PV**=3PL.ABS

　　　'Huwag mo silang gisingin.'

　　　'Do not wake them up.'

In both affirmative and negative PV constructions in Tausug in (95) and (96), the affix is -*a*. As will be seen in other affirmative NAV imperative constructions in Tausug—(theme,) locative, and instrument—the participant being commanded is obligatorily omitted.

(95)　Languga in taymanghud mo.

　　　laŋug**a** mu ʔin tajmaŋhud mɔ

　　　laŋug-**a**=mu　　　ʔin=tajmaŋhud=mɔ

　　　play a joke-**IMP.PV** ABS=sibling=2SG.GEN

　　　'Biruin mo ang kapatid mo.'

　　　'Play a joke on your sibling.'

(96)　**Ayaw** mu languga in taymanghud mo.

　　　ʔajaw mu laŋuga ʔin tajmaŋhud mɔ

　　　ʔajaw=mu　　　laŋug-**a**　　　　　ʔin=tajmaŋhud=mɔ

　　　NEG=2SG.ERG play a joke-**IMP.PV** ABS=sibling=2SG.GEN

　　　'Huwag mong biruin ang kapatid mo.'

　　　'Do not play a joke on your sibling.'

Exemplified in (97) and (98) are a subtype of PV imperative constructions, theme-voice (TV), where the affix is -*an*. As discussed in §5.2, a theme "is moved by an action" and "remains constitutionally unchanged" (Saeed, 2016, pp. 150–151).

(97) Dihil**an** in sin mu kaku.
dihil**an** ʔin sin mu kaku
dihil-**an**   ʔin=sin=mu   kaku
give-**IMP.PV** ABS=money=2SG.GEN 1SG.OBL
'Ibigay mo ang pera mo sa akin.'
'Give your money to me.'

(98) **Ayaw** dihil**an** mu in sin mu kaku.
ʔajaw dihil**an** mu ʔin sin mu kaku
ʔajaw dihil-**an**=mu   ʔin=sin=mu   kaku
NEG   give-**IMP.PV**=2SG.GEN ABS=money=2SG.GEN 1SG.OBL
'Huwag mong ibigay ang pera mo sa akin.'
'Do not give your money to me.'

Regarding LV imperative constructions, Bagobo-Klata has two LV imperative affixes: *-a* and *tam-*, as shown in (99), (100), and (101); while in Tausug, there is only one: *-i*, as shown in (102) and (103).

(99) Blay**a** mo ma neng tokkaa keng nagong assu.
blaj**a** mɔ ma nɛŋ tɔkkaʔa kɛŋ nagɔŋ ʔassu
b(ɔl)la-(ɔ)j-**a**=mɔ=ma   nɛŋ=tɔ-k-kaʔa
give-**IMP.LV**=2SG.ERG=PRT GEN=NOM-eat
kɛŋ=nagɔ=ŋɔ=ʔassu
ABS=1SG.GEN=LNK=dog
'Bigyan mo ng pagkain ang aking aso.'
'Give my dog something to eat.'

(100) **Tam**unga mo hiya kongngo.

tamuːŋa mɔ hija kɔŋŋɔ

tam-(ʔ)uːŋa=mɔ=hija   kɔŋŋɔ

IMP.LV-call=2SG.ERG=3SG.ABS ADV.later

'Tawagan mo siya mamaya.'

'Call him/her later.'

(101) **Iyâ** mo ma blay**a** neng tokkaa keng nagong assu.

ʔijaʔ mɔ ma blaja nɛŋ tɔkkaʔa kɛŋ nagɔŋ ʔassu

ʔijaʔ=mɔ=ma   bɔllɔj-**a**   nɛŋ=tɔ-k-kaʔa

NEG=2SG.ERG=PRT give-**IMP.LV** GEN=NOM-eat

kɛŋ=nagɔ=ŋɔ=ʔassu

ABS=1SG.GEN=LNK=dog

'Huwag mong bigyan ng pagkain ang aking aso.'

'Do not give my dog something to eat.'

(102) Tahan**i** in sakit. Gana-gana malawa' na sa yan.

tahan**i** ʔin sakit gana gana malawaʔ na sa jan

tahan-**i**   ʔin=sakit gana~gana ma-lawaʔ   na=sa

endure-**IMP.LV** ABS=pain soon   IRR.POT-go PRT=PRT

jan

DEM.MED.ABS

'Tiisin mo ang sakit. Mawawala rin ito.'

'Endure the pain. It will be really gone soon.'

(103) **Ayaw** aku dihil**i** damak.
      ʔajaw ʔaku dihil**i** damak
      ʔajaw=ʔaku   dihil-**i**   ø=damak
      NEG=1SG.ABS give-**IMP.LV** GEN=gift given by a suitor
      'Huwag mo akong bigyan ng regalo.'
      '(You) do not give me a gift.'

    IV imperative affixes in Bagobo-Klata and Tausug are *p(ɔ)-* and *hipaN-*, respectively. In Bagobo-Klata, *pɔ-* has two allomorphs: *p-* before a voiceless glottal stop in (104) and *pɔ-* before elsewhere in (105), while in Tausug, *hipaN-* either assimilates or replaces the word-initial sound of the root, as exemplified in (106) and (107).

(104) **P**epok mo neng kayyu konning badi.
      pɛpɔk mɔ nɛŋ kajju kɔnniŋ badiʔ
      p-(ʔ)ɛpɔk=mɔ   nɛŋ=kajju kɔnni=ŋɔ=badiʔ
      IMP.IV-cut=2SG.ERG GEN=tree   DEM.PROX.ABS=LNK=bolo
      'Ipapamputol mo ng puno itong itak.'
      'Use this bolo to cut a tree.'

(105) **Iyâ** mo **po**puung keng dau neng bulig ta payad.
      ʔijaʔ mɔ **pɔ**puʔuŋ kɛŋ daːʔu nɛŋ buːlig ta paːjad
      ʔijaʔ=mɔ   **pɔ**-puʔuŋ   kɛŋ=daːʔu=nɛŋ=buːlig
      NEG=2SG.ERG **IMP.IV-**wrap ABS=leaf=GEN=banana
      ta=paːjad
      OBL=dried fish
      'Huwag mong ipambalot ang dahon ng saging sa daing.'
      'Do not use the banana leaf to wrap the dried fish.'

(106)   **Hipam**utos sin byanban in lukay ini.

        hipamutɔs sin bijanban ʔin lukaj ʔini

        hipaN-(p)utɔs sin=bijanban

        IMP.IV-wrap   GEN=steamed rice cake

        ʔin=lukaj=ʔini

        ABS=coconut leaf=DEM.PROX.ABS

        'Ipapambalot niya ng suman itong dahon ng niyog.'

        'I will use this coconut leaf to wrap steamed rice cake.'

(107)   **Ayaw** mo **hipam**ahid ha lamisan in dagmay ini.

        ʔajaw mɔ **hipam**ahid ha lamisan ʔin dagmaj ʔini

        ʔajaw=mɔ   **hipaN-**(p)ahid ha=lamisan

        NEG=2SG.ERG IMP.IV-wipe   OBL=table

        ʔin=dagmaj=ʔini

        ABS=cloth=DEM.PROX.ABS

        'Huwag mong ipampunas sa mesa itong tela.'

        'Do not use this cloth to wipe the table (clean).'

7.3 Desiderative Modality

The desiderative modality is concerned with the speaker's desire to perform some action or to cause something to happen. Because desire is internal to the participant or the agent, this category falls under participant-internal modality. It is expressed as a modal verb in Bagobo-Klata and Tausug.

As shown in (108) and (109), there are two modal verbs of desire in Bagobo-Klata: *tommana* and *mayad*. They are morphologically defective. In terms of syntax, both occur clause-initially but differ in agent case

marking. In (108), the agent *Ben* is marked by a genitive common nominal marker, while in (109) the agent *angnga* is marked by an absolute common nominal marker.

(108) **Tommana** ro mipit no Ben.
  tɔmmana rɔ mipit nɔ bɛn
  tɔmmana=r-(d)ɔ m-(ʔ)ipit nɔ=bɛn
  MOD=PRT   IRR.AV-sleep GEN=Ben
  'Gustong matulog ni Ben.'
  'Ben wants to sleep.'

(109) **Mayad** mipit keng angngâ.
  majad mipit kɛŋ ʔaŋŋaʔ
  m-(ʔ)ajad m-(ʔ)ipit kɛŋ=ʔaŋŋaʔ
  MOD   IRR.AV-sleep ABS=child
  'Gustong matulog ng bata.'
  'The child wants to sleep.'

In Tausug, *mabaya'* in (110) encodes desire and possesses the same morphosyntactic characteristics with *tommana* and *mayad*.

(110) **Mabaya'** bihan sin bata-bata in budjang kindi.
  maβajaʔ biːhan sin bataʔ bataʔ ʔin budʒaŋ kindi
  ma-β-(b)ajaʔ biːhan sin=bataʔ-bataʔ ʔin=budʒaŋ
  MOD   buy-IRR.PV ERG=child ABS=lass
  ø=kindi
  GEN=candy
  'Gustong bilhan ng bata ang dalaga ng kendi.'
  'A child wants to buy candy for the lass.'

Going back to *tommana* and *mayad*, one major difference between them, when used lexically, is the case marking of the core arguments. In (111) and (112), the experiencers are the ergative personal pronoun *niya* and the oblique personal pronoun *nago*, respectively, while the stimuli are *ho Ana* and *hiya*, which are both absolutives.

(111)   **Tommana** niya ho Ana.
         tɔmmana nija hɔ ʔana
         tɔmmana=nija hɔ=ʔana
         like=3SG.ERG   ABS=Ana
         'Gusto niya si Ana.'
         'He likes Ana.'

(112)   **Mayad** hiya nagô.
         majad hija nagɔʔ
         m-(ʔ)ajad=hija nagɔʔ
         like=3SG.ABS   1SG.OBL
         'May gusto siya sa akin.'
         'He/she loves me.'

As shown in (113), *tommana* can be used not only as a verb but also as a noun.

(113)   Dayt keng **tommana** mo?
         dajt kɛŋ **tɔmmana** mɔ
         dajt   kɛŋ=**tɔmmana**=mɔ
         QP.what ABS=**want**=2SG.GEN
         'Ano ang gusto mo?'
         'What is it that you want?'

In terms of its lexical use, *baya'* 'desire, want' yields nuanced meanings depending on the affix. In (114), when affixed with *ka-…-an*, a discontinuous morpheme in Tausug that typically attaches on perceptive verbs, *baya'* means 'to like someone.' In (115), on the other hand, the realis reciprocal affix *nag-* produces a meaning in which the plural agents *sila* have been in a relationship.

(114)   Ka**baya**an ko siya.
    ka**βaja?**an kɔ sija
    ka-**β-(b)aja?**-an=kɔ=sija
    IRR-**like**-BV=2SG.ERG=3SG.ABS
    'Gusto ko siya.'
    'I like him/her.'

(115)   Malugay na sila nagba**baya'**.
    malugaj na sila nagba**βaja?**
    ma-lugaj=na=sila   n-(m)ag-ba~**β-(b)aja?**
    STAT-duration=PRT=3PL.ABS RLS-(AV)-IPFV~**love**
    'They have been in love for a long time now.'

In addition to the modal verbs of desire, another modal expression, one that expresses the speaker's wish, is subsumed here because wishes and desires are interrelated. When one wishes for something, they want to have something or to do something. Moreover, wishes can also be interpreted as appeals to a higher being as if you were commanding Him to grant your wishes. Technically, this marker is called optative. In Bagobo-Klata and Tausug, this marker takes the form of a modal particle. In Bagobo-Klata, the optative particle *kitû* is flexible, occurring clause-initially in (116) and clause-medially in (117) and (118).

(116) **Kitû** kinna ro salapi ku.

      kituʔ kinna ɾɔ salapi ku

      kituʔ kinna=ɾ-(d)ɔ salapi=ku

      MOD   EXIST=PRT   money=1SG.GEN

      'Sana magkapera ako.'

      'I hope I would have money.'

(117) Indi **kitû** mula.

      ʔindiʔ **kituʔ** mula

      ʔindiʔ=**kituʔ** m-(ʔ)ula

      NEG=**MOD**   IRR.AV-rain

      'Sana hindi umulan.'

      'Hopefully, it won't rain.'

(118) Horinni **kitû** hiya dinni.

      hɔɾinni **kituʔ** hija dinni

      hɔ-ɾ-(d)inni=**kituʔ**=hija   dinni

      IRR.DIR-come=**MOD**=3SG.ABS DEM.PROX.OBL

      'Sana dumating siya rito.'

      'Hopefully, he/she would come here.'

In Tausug, the modal particle *bang ma(ya)n*[24] occurs only clause-initially, as shown in (119) and (120). Moreover, this particle can host pronominal clitics such as *kaw* in (119).

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[24]In addition to *bang ma(ya)n*, there are two other optative modal verbs Tausug speakers use: *kaddaw* and *mura-murahan*. These three verbs are all semantically interchangeable, but syntactically, *kaddaw* can occur in all clause-positions while *bang ma(ya)n* and *mura-murahan* are restricted to a clause-initial position (Hassan et al., 1994).

(119)   **Bang mayan** kaw maligad.
       baŋ majan kaw maliɣad
       baŋ majan=kaw ma-li-(g)-ɣad
       MOD=2SG.ABS   POT.IRR-fall over
       'Sana masubsob ka.'
       'I hope you'd fall over.'

(120)   **Bang mayan** umulan kinsum.
       baŋ majan ʔumulan kinsum
       baŋ majan=ʔ<um>ulan kinsum
       MOD=<IRR.AV>rain   ADV.tomorrow
       'Sana umulan bukas.'
       'Hopefully, it will rain tomorrow.'

7.4 Obligation and Suggestion

In some Philippine languages like Tagalog and Cebuano, obligation and suggestion are expressed via modal verbs. As types of directives, obligation and suggestion are typically used to get something done by someone, so they both fall under deontic and non-deontic participant-external modalities. In terms of scalarity, obligation is stronger than suggestion.

In Bagobo-Klata, *kailanga*, which seems to have been loaned from Tagalog, encodes obligation in (121) and (122) and suggestion in (123) and (124). For instance, (121) has a non-deontic (circumstantial) reading because the participant is under the obligation to be present where he must be tomorrow morning as imposed by someone in authority, while

(122) has a deontic (speaker-driven) reading where the participant must slice the meat in small pieces according to the speaker's instructions.

(121)   Non-Deontic (Circumstantial)
         Kailanga horinni ko ro klommô neng lommô.
         kaʔilaŋa hɔɾinni kɔ ɾɔ klɔmmɔʔ nɛŋ lɔmmɔʔ
         kaʔilaŋa hɔ-r-(d)inni=kɔ=rɔ
         MOD   IRR.DIR-come=2SG.ABS=PRT
         klɔmmɔʔ=nɛŋ=lɔmmɔʔ
         tomorrow=GEN=morning
         'Kailangan pumunta ka rito bukas ng umaga.'
         'You must be here tomorrow morning.'

(122)   Deontic (Speaker-Driven)
         Kailanga laso no Anna neng mumutti keng lamas.
         kaʔilaŋa laːsɔ nɔ Ana nɛŋ mumutti kɛŋ lamas
         kaʔilaŋa ʔilas-ɔ   nɔ=Ana   nɛŋ=mu~mutti kɛŋ=lamas
         MOD   slice-IRR.PV ERG=Ana GEN=INTS~small ABS=meat
         'Kailangan hiwain ni Ana nang maliliit ang karne.'
         'Ana must slice the meat in small pieces.'

In (123), the suggestion given is circumstantial, emanating from a pediatrician suggesting that the participant eat more vegetables as opposed to unhealthful choices like sweets, meat, and whatnot, while in (124), the speaker suggests that the participant eat plenty probably because s/he has been observed to eat less than the usual.

(123)   Non-Deontic (Circumstantial)
      Kailanga maang ko neng nata.
      kaʔilaŋa maʔaŋ kɔ nɛŋ naːta
      kaʔilaŋa m-(k)aʔa=ŋɔ=kɔ   nɛŋ=naːta
      MOD   IRR.AV-eat=LNK=2SG.ABS GEN=vegetable
      'Dapat kang kumain ng gulay.'
      'You should eat vegetable.'

(124)   Deontic (Speaker-Driven)
      Kailanga ko maang neng polos.
      kaʔilaŋa kɔ maʔaŋ nɛŋ pɔlɔs
      kaʔilaŋa=kɔ m-(k)aʔa ŋɔ   nɛŋ=pɔlɔs
      MOD=2SG.ABS IRR.AV-eat LNK GEN=plenty
      'Dapat kumain ka nang marami.'
      'You should eat plenty.'

Moreover, the need for a linker is optional in using *kailanga* as a modal verb, as shown in (121) and (122), and it must be noted too that this modal verb can host a pronominal clitic such as *ko* in (124).

In Tausug, obligation and suggestion are expressed by two different modal verbs, *kagunahan* and *sarang*, respectively. Morphosyntactically, *kagunahan* is a clause-initial element that can act as a host to pronominal clitics such as *ku* and *natu*. Exemplified in (125) and (126) non-deontic and deontic readings of obligation in Tausug. In (125), the participant is obliged to come to work tomorrow according to his/her signed contract, while in (126), Issa says that it is our obligation to love each other.

(125) Non-Deontic (Circumstantial)
Kagunahan ku sumud kinsum.
kayunahan ku sumud kinsum
ka-ɣ-(g)una-(h)an=ku s<um>ud   kinsum
MOD=1SG.ABS   <IRR.AV>come ADV.tomorrow
'Kailangan kong pumasok bukas.'
'I need to come (to work) tomorrow.'

(126) Deontic (Speaker-Driven)
Laung hi Issa, "**Kagunahan** natu magliyasahi."
laʔuŋ hi ʔiːsa **kayunahan** natu maglijasahi
ø-laʔuŋ   hi=ʔiːsa **ka-ɣ-(g)una-(h)an**=natu
RLS.PV-say ERG=Issa MOD=1PL.INCL.GEN
mag-l<ij>asa-(h)i
IRR-<RECP>love-RECP
'Sabi ni Issa, "Kailangan nating magmahalan."'
'Issa said, "We must love one another."'

In terms of lexical origins, the modal verb *kagunahan* clearly derives from the Tausug word *guna*, which can be used either as a noun or as a verb. In (127), *guna* means 'usefulness, utility, need,' while in (128), 'to use something.' Similar to *baya'*, *guna*'s modal use is distinguished by the discontinuous affix *ka-…-an*.

(127) Bugitan na in manga kakatasan bang way na **guna**.
buɣitan na ʔin maŋa kakatasan baŋ waj na **ɣuna**
buɣ-(g)it-an=na   ʔin=maŋa=kakatasan baŋ
throw-IMP.PV=PRT ABS=PL=paper   COND
waj=na   **ɣ-(g)una**
NEG.EXIST=PRT **use**
'Itapon mo na ang mga papel na wala nang silbi.'
'Throw the papers already if they have no use.' (Hassan et al., 1994)

(128) **Guna**hun ta in manga dagmay dihil katu sin mga tau.
gunahun ta ʔin maŋa dagmaj diːhil katu sin maŋa taʔu
guna-(h)un=ta   ʔin=maŋa=dagmaj=ø=diːhil
use-IRR.PV=1PL.INCL.ERG ABS=PL=rag=LNK=RLS.PV.give
katu   sin=maŋa=taʔu
1PL.INCL.OBL GEN=PL=person
'Gagamitin natin ang mga basahan na ibinigay sa atin ng mga tao.'
'We will use the clothes the people gave to us.' (Hassan et al., 1994)

In Tausug, the modal verb *sarang* encodes non-deontic and deontic suggestion. Morphosyntactically, this verb is also a clause-initial element that can host clitics such as *kaw*. Shown in (129) and (130) are its non-deontic and deontic readings. In (129), it is suggested by someone in authority that the participant be here tomorrow morning, while in (130), the speaker suggests that the participant eat more than s/he should.

(129) Non-Deontic (Circumstantial)
Sarang daindi na kaw kinsum mahinaat.
saraŋ daʔindi na kaw kinsum mahinaʔat
saraŋ daʔindi=na=kaw   kinsum
MOD   DEM.PROX.OBL=PRT=2SG.ABS ADV.tomorrow
mahinaʔat
ADV.morning
'Dapat nandito ka bukas ng umaga.'
'You should be here tomorrow morning.'

(130) Deontic (Speaker-Driven)
Sarang kaw kumaun mataud.
saraŋ kaw kumaʔun mataʔud
saraŋ=kaw   k<um>aʔun ø=mataʔud
MOD=2SG.ABS <IRR.AV>eat GEN=many
'Dapat kumain ka ng marami.'
'You should eat plenty.'

This modal verb clearly derives from the Tausug verb *sarang* 'to fit, to be enough,' the lexical uses of which are shown in (131) and (132). Apparently, the original meaning became semantically extended in that it acquired a modal meaning in which things in this world should fit the ideals of the speaker or the external circumstances.

(131) Hi**sarang** ku in badju niya.
       hi**saraŋ** ku ʔin badʒuʔ niya
       hi-**saraŋ**=ku   ʔin=badʒuʔ=niya
       IRR.PV-**fit**=1SG.ERG ABS=shirt=3SG.GEN
       'Isusukat ko ang damit niya.'
       'I will try on his shirt (to see if it fits).' (Hassan et al., 1994)

(132) Di **sumarang** in badju ku kaniya.
       diʔ **sumaraŋ** ʔin badʒuʔ ku kanija
       diʔ **s<um>araŋ** ʔin=badʒuʔ=ku   kanija
       NEG <IRR.AV>**fit** ABS=dress=1SG.GEN 3SG.OBL
       'Hindi sakto ang damit ko sa kanya.'
       'My dress does not fit her.' (Hassan et al., 1994)

7.5 Permission

Permission is another type of directives in which some action is al-
lowed. In Bagobo-Klata and Tausug, permissive modality is expressed
via a modal verb: *puidi* and *manjari*, respectively. Morphosyntactically,
both verbs occur as clause-initial elements that can host clitics, mostly
pronominal, as shown from (133) to (135). Moreover, the sentences
exemplified below are deontic or speaker-driven.

The modal verb of permission in Bagobo-Klata is borrowed from
the Spanish verb *puede* 'he/she/it can,' which is quite prevalent in most
Philippine languages.

(133)   **Puidi** ko ro manne.
      pujdi kɔ rɔ mannɛ
      pujdi=kɔ=rɔ   m-(k)annɛ
      MOD=2SG.ABS=PRT IRR.AV-leave
      'Puwede ka nang umalis.'
      'You may leave (already).'

As shown in (134) and (135), the modal verb of permission in Tausug has two forms: *makajari* and *manjari*.

(134)   **Makajari** ko mari kinsum.
      makadʒaɾi sija maɾi kinsum
      maka-dʒaɾi=sija m-(k)ari   kinsum
      MOD-3SG.ABS   IRR.AV-come here ADV.tomorrow
      'Puwede kang pumunta rito bukas.'
      'You can come here tomorrow.'

(135)   **Manjari** ko magad kanaku patabu.
      mandʒaɾi ʔako magad kanaku patabu
      maN-dʒaɾi=ako m-(ʔ)agad kaku   pa-tabu
      MOD=1SG.ABS   IRR.AV-go 1SG.OBL DIR-market
      'Puwede kang sumama sa akin sa palengke.'
      'You can go with me to the market.'

jari is regarded as the possible lexical origin of the Tausug modal verb of permission. Shown in (136) is the lexical use of *jari*.

(136)   Bang mu **jari**hun in utak yan, daha.
        bang mu **dʒari**hun ʔin ʔutak jan daha
        bang=mu   **dʒari**-(h)un ʔin=ʔutak=jan
        COND=2SG.ERG **use**-IRR.PV   ABS=bolo=DEM.MED.ABS
        da-(h)a
        take-IMP.PV
        'Kung gagamitin mo ang bolo, dalhin mo (ito).'
        'If you will use that bolo, take (it).' (Hassan et al., 1994)

7.6 Summary

In this section, the corresponding expressions of event modality in Bagobo-Klata and Tausug have been discussed, as shown in Tables 7, 8, and 9. Except for the participant-internal ability in Bagobo-Klata, the expression for each category is similar in both languages: participant-internal and non-deontic participant-external ability and potentiality and deontic participant-external second-person command are expressed via modal affixes, while participant-internal desire and deontic and non-deontic participant-external permission, suggestion, and obligation are expressed via modal verbs. As discussed, optative modality (or the participant's wishes), which is subsumed under desiderative modality, is expressed as a modal verb in both languages.

   In terms of morphosyntax, modal verbs under event modality, except for loaned ones such as *puidi* and *kailanga* in Bagobo-Klata, can be distinguished from their lexical sources by the affixes attached to them, as well as their clause position. Most of these verbs are restricted to a clause-initial position, and they can host clitics, pronominal or adverbial. As for modal affixes, abilitative and potentive affixes, which are generally

Table 7. Participant-Internal Modality Expressions in Bagobo-Klata and Tausug

	Abilitative	Potentive	Desiderative
Bagobo-Klata	kɔ- + tɔwuʔ	mɔ-, kɔ-	tɔmmana, majad
Tausug	maka-	ma-	mabajaʔ, bang ma(yan)

Table 8. Participant-External (Speaker-Driven) Modality Expressions in Bagobo-Klata and Tausug

	Command	Permission	Obligation	Suggestion
Bagobo-Klata	Imperative	pujdi	kaʔilaŋa	
Tausug	& Hortative	mandʒari, makadʒari	kaɣunahan	saraŋ

Table 9. Participant-External (Circumstantial) Modality Expressions in Bagobo-Klata and Tausug

	Abilitative	Potentive	Permission	Obligation	Suggestion
Bagobo-Klata	kɔ-	mɔ-	pujdi	kaʔilaŋa	
Tausug	maka-	ma-	mandʒari, makadʒari	kaɣunahan	saraŋ

intransitive, have both irrealis and realis forms, and potentive ones can co-occur with NAV affixes, inflecting for voice too. Moreover, modal verbs of wishes in Bagobo-Klata and Tausug both behave like clitics but differ in clause positions: *kitû* is more flexible than *bang ma(ya)n*.
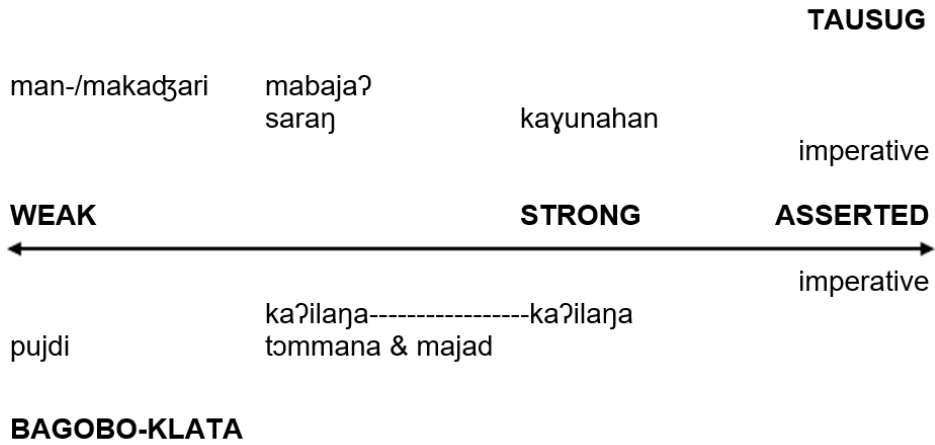
TAUSUG

man-/makaʤari   mabajaʔ
saraŋ   kaɣunahan

imperative

WEAK   **STRONG**   **ASSERTED**

imperative

kaʔilaŋa----------------kaʔilaŋa
pujdi   tɔmmana & majad

BAGOBO-KLATA

Figure 3. Scalar Model of Expressions of Event Modality in Bagobo-Klata and Tausug

Shown in Figure 3 are the relative positions of expressions of event modality in Bagobo-Klata and Tausug. Abilitative and potentive affixes are excluded because they are binary.

8 Conclusion

Although both languages are sufficiently argued to be daughter languages of Proto-Philippine, they belong to different subgroups that have been established by respective lexical and phonological innovations (Blust, 2019). However, it has been presented and discussed in this paper that from a typological perspective, Bagobo-Klata and Tausug have a lot in common concerning the linguistic category of modality. In these languages, it is expressed through mood—the morphological expression of modality—and modal system(s).

The system of mood in Bagobo-Klata and Tausug is binary and non-joint-marking. First, it is obligatory to mark verbal constructions for irrealis or realis through verbal affixation. Second, mood affixes do not co-occur with other grammatical markers to encode irreality or reality. It can also be noticed that in these languages, the absence of the mood marker expresses irrealis mood, while the presence of such a marker indicates realis mood.

Furthermore, analogous to Yami, Bagobo-Klata and Tausug also employ "a mixed-modal system" in which typological categories of modality take various forms, i.e., modal particles, modal verbs, and modal affixes. The expressions of propositional modality in Bagobo-Klata and Tausug consist of speculative, veridical, and reported modal particles and assumptive modal verbs, while the expressions of event modality are comprised of modal verbs of permission, suggestion, and obligation, abilitative, potentive, and imperative affixes, and optative modal particles. In terms of morphosyntax, modal particles are more flexible than modal verbs because the latter, including some modal particles, are restricted to a clause-initial position. Ability, potentiality, and second-person commands are independent of mood despite being morphologically expressed via affixes and, except for imperative affixes, distinguishing irrealis and realis forms. Moreover, tracing an expression's lexical source depends on how well-documented a language is. In the case of modality expressions in Tausug, most of them are traceable because there is a published dictionary. However, in Bagobo-Klata, it has been a bit of a puzzle to do so because there are no written materials available. The modality expressions in Bagobo-Klata, except for *mayad*, *tommana*, *haddo'k*, and *gayu*, cannot be used lexically.

Ultimately, by providing a coherent account of modality in Bagobo-Klata and Tausug that has laid out the expressions of modality and described their respective features from a typological framework, this paper, alongside Vondiziano (2019)'s work on modality in Yami, is yet another contribution toward "establishing a typology of modality in Philippine languages" (p. 126).

List of Abbreviations

1	first person		INCL	inclusive
2	second person		INTS	intensive
3	third person		IPFV	imperfective
ABIL	abilitative		IRR	irrealis
ABS	absolutive		IV	instrument voice
ADJ	adjective		LNK	linker
AV	actor voice		LV	locative voice
BV	benefactive voice		MED	medial
CAUS	causative		MOD	modal
COM	comitative		NEG	negation
COND	conditional		NOM	nominalizer
CONJ	conjunction		OBL	oblique
CONT	contemplative		PL	plural
CORE	core		PFV	perfective
DEM	demonstrative		POT	potentive
DIST	distal		PROX	proximal
DIR	direction		PRT	particle
ERG	ergative		PV	patient voice
EXCL	exclusive		QP	question particle
EXIST	existential		REL	relative
GEN	genitive		RECIP	reciprocal
IMP	imperative		RED	reduplication

RLS	realis	STAT	stative
SG	singular	STEM	stem

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