

Quantifiers in Kenyah Uma Baha

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1 Introduction

Uma Baha (also known as Uma Baka) which is part of the Kenyah language family, is an Austronesian language spoken in Northern Sarawak and in East Kalimantan on the island of Borneo. The number of speakers is not available, since no previous linguistic study has been done on this language; however, the overall number of speakers of all the languages that are part of the Kenyah language family (ISO: xkl) in Brunei, Indonesia, and Malaysia is 52,000 (Ethnologue, Lewis et al., 2015). Our work focuses on the Kenyah Uma Baha spoken in Sarawak, in the Sungai Asap Bakun resettlement in the district of Belaga.

Uma Baha does not have an official writing system; however, it is common for speakers to communicate with each other in written form (text, e-mail etc.) using a writing system based on Malay orthography. It is important to note that such a system is not standardized between speakers and that there are discrepancies on how certain words are spelled. For now, we based the writing system on what our speakers recommended, and we include this information in the following section. The present work is based on data that was collected in the town of Sibul, Sarawak, during the summer of 2015. We hope to continue working on this language in the near future.

2 Uma Baha Orthography and Grammar: Some Background

This section provides information on the orthography used during data collection, as well as a brief overview of the grammar of Uma Baha. It is important to note that this work is still in a preliminary stage, thus we will need more time and further investigation to provide thorough information on the grammar.

2.1 Uma Baha Orthography

The correspondence between phonemes in Uma Baha and orthographic symbols is given in Table 1.

Phoneme	Orthographic Symbol
/a/	a
/b/	b
/tʃ/	c
/d/	d
/ə/	e
/e/	ei
/f/	f
/g/	g
/h/	h
/i/	i
/dʒ/	j
/k/	k
/l/	l
/m/	m
/n/	n
/ɲ/	ny
/ŋ/	ng
/o/	o
/p/	p
/r/	r
/s/	s
/t/	t
/u/	u
/v/	v
/w/	w
/y/	y
/z/	z
/ʔ/	,

Table 1: Orthographic symbols for phonemes

Additionally, it is important to note that the following allophones are present in the language:

Word initial and following a consonant	Between vowels
[d]	[r]
[dʒ]	[y]
[k]	[h]
[b]	[v]

Table 2: Allophones in Uma Baha

2.2 Uma Baha Grammar

Both SVO and VOS word order, as seen in (1), are found in Uma Baha; the factor determining word order remains unclear and requires further investigation.

- (1) a. Jalong meli ca macan
Jalong buy one papaya
b. meli ca macan Jalong
buy one papaya Jalong
'Jalong bought a papaya'¹

We did not uncover any overt verbal morphology, case morphology or plural marker in this language². However, reduplication is a prominent feature in Uma Baha and is found on quantifiers as well³. Uma Baha is also a zero copula language where no overt copula is found.

The Uma Baha DP presents two word orders: noun-adjective-numeral-demonstrative (2) and numeral-PRT-noun-adjective-demonstrative (3). In the case of (3), where the numeral appears to the left of the noun, the particle *re* is always required. When there is a non-cardinal quantifier in the DP, it only appears on the left of the DP as shown in example (4).

- (2) mija bileng telu rei buwei
table green three those clean
'Those three green tables are clean'
(3) telu re mija bileng rei buwei
three PRT1 table green those clean
'Those three green tables are clean'
(4) mong kelunan de' ngelasit lepo' du takap
all people REL steal already people catch
'All of those thieves were caught'

There are two negation markers in this language. The first marker, *ta'un*, negates the sentence as in (5) while the second marker, *tak*, negates the DP, as in (6).

- (5) ta'un ke' umen usan jei nyaap de
NEG1 1.SG eat pineapple that yesterday PRT2
'I didn't eat that pineapple yesterday'

¹Unless otherwise noted, all data are from the authors' field notes. Abbreviations in glosses are as follows: PRT-Particle (we have numbered particles differently as we are unsure of their specific role at this point); EXT-existential (there are two existential markers, hence, we numbered them EXT1 and EXT2); REL-relativizer; NEG-negation; SG-singular; PL-plural; POSS-non verbal predicative possessive; CLASS-classifier; EVI-evidential.

²We note that many verbs in this language contain an initial nasal, which resembles the *mə(N)*- prefix common to Austronesian languages. However, our speakers do not recognize any morpheme boundaries for verbs. Hence, we think that the recurrent pattern of initial nasal on verbs is merely a remnant of the *mə(N)*- prefix and does not constitute as a morpheme.

³At this point of our investigation, we have not been able to find a connection between reduplication and plurality, as we would expect given that reduplication is used for plurality in some Austronesian languages. For this paper, we will not discuss plurality.

- (6) tak Jalong tai pasen nyaap de
 NEG2 Jalong go market yesterday PRT2
 ‘Jalong was not the one that went to the market yesterday’ (lit: It was not Jalong that went to the market yesterday.)

Uma Baha has two different ways of forming existential construction, with the existential marker *ini* or with the existential marker *un*. The existential marker *ini* scopes over the whole sentence and always appears in sentence initial position.

- (7) a. ini ca usan ta mija
 EXT1 one pineapple on table
 ‘There is (such a fact that) a pineapple is on the table’
 b. ini Jalong masat ta janan
 EXT1 Jalong walk on road
 ‘There is (such a fact that) Jalong is walking on the road’

The existential marker *un*, which also has a similar usage to the English ‘has’, can only be used with indefinite DPs. When the locative adjunct is fronted, as seen in example (8b), *un* is used instead of *ini*.

- (8) a. un ca usan ta mija
 EXT2 one pineapple on table
 ‘There is a pineapple on the table’
 b. ta mija un/*ini ca usan
 on table EXT2/EXT1 one pineapple
 ‘On the table, there is a pineapple’

Un cannot be used with definite DPs, as seen in the example below.

- (9) ta janan (*un/*ini) Jalong masat
 on road EXT2/EXT1 Jalong walk
 ‘On the road, Jalong is walking’

The possessive constructions in Uma Baha are as follows: an adnominal possessive construction, as in (10), a non-verbal predicative one, as in (11), and a predicative construction asserting possession, as in (12).

- (10) [[macan Jalong] [ji]]
 papaya Jalong this
 ‘This is Jalong’s papaya’
 (11) [[anun Jalong] [macan jei]]
 POSS Jalong papaya that
 ‘That papaya is Jalong’s’
 (12) Jalong un ca macan
 Jalong has one papaya
 ‘Jalong has a papaya’

Finally, numerous particles are found in Uma Baha, some of them, *le* being one, give an emphatic connotation. While some other particles, such as *ba* and *re*, are used for focusing a particular element. It is noted that intonation can also be relevant for focusing of a particular element in the sentence.

- (13) *tangen masat le Jalong tai ke sekula*
 always walk PRT4 Jalong go to school
 ‘Jalong always walks to school’
- (14) a. *macan ba Jalong umen*
 papaya PRT3 Jalong eat
 ‘Jalong ate a papaya’ (lit: a papaya is what Jalong ate.)
- b. *umen macan ba Jalong*
 eat papaya PRT3 Jalong
 ‘Jalong ate a papaya’ (lit: eating a papaya is what Jalong did.)
- (15) *ini telu re kavon ta lamin*
 EXT1 three PRT1 basket on house
 ‘There are three baskets in the house’

Three Basic Classes of Quantifiers

The data below are elicited based on the sentences in the quantifier questionnaire.

3 Generalized Existential (Intersective Quantifiers)

3.1 D-Quantifiers

The example below demonstrates existential quantifiers in Uma Baha. *Ini*, which is an existential marker, always appears before the quantifier in an existential construction. Uma Baha does not contain an indefinite article, but it uses the cardinal number *ca* (one) as an indefinite article. Note that in this case, the particle *re*, which is usually required when the numeral comes before the verb, is not required.

- (16) *ini ke’ ta’an ca keben maren lepo hata lamin da*
 EXT1 1.SG see one picture chief village at.on house 1.PL
 ‘I saw a picture of the chief in the house’ (lit: I saw a picture of the chief of the village in our house.)⁴

Another existential quantifier is *defalai*, as shown in the example below.

- (17) *ini defalai anak lahi lagu ha kavang*
 EXT1 some child male sing at outside
 ‘Some boys are singing outside’

The cardinal quantifier appears before an indefinite DP and the particle *re* is required following the quantifier. In (18), the existential marker *ini* is optional.

- (18) (*ini*) *dua re anak lahi lagu ha kavang*
 EXT1 two PRT1 child male sing at outside
 ‘Two boys are singing outside’

⁴The Kenyah people live in longhouses that house many different families, hence the possessive pronoun of house is always first plural.

The cardinal quantifier and the particle *re* may also appear after an indefinite DP, but in this case, the existential marker *ini* is compulsory.

- (19) *ini anak lahi dua re lagu ha kavang*
 EXT1 child boy two PRT1 sing at outside
 ‘Two boys are singing outside’

In the case of definite DPs, the cardinal quantifier and the particle *re* may appear before the DP.

- (20) *dua re anak lahi rei lagu ha kavong*
 two PRT1 child boy those sing at outside
 ‘Those two boys are singing outside’

However, if the cardinal quantifier follows the definite DP, the particle *re* is not needed.

- (21) *anak lahi dua rei lagu ha kavong*
 child boy two those sing at outside
 ‘Those two boys are singing outside’

In the case of interrogatives⁵, the particle *re* appears between the cardinal quantifier, *kuda re hado*⁶, ‘how many’ but not for the intersective quantifier ‘which’, as seen in the examples below.

- (22) *kuda re hado' anak sekula de' tai ke pasen?*
 how PRT1 many child school REL go to market
 ‘How many students went to the market?’
- (23) *de' jepi anak sekula de' tai ke pasen?*
 REL which child school REL go to market
 ‘Which students went to the market?’

Value judgment quantifiers such as *kado*⁷ ‘many’ and *sukup* ‘enough’ are also found in the language.

- (24) *kado' anak sekula tai ke pasen tapi keritut de' nai ule'*
 many child school go to market but few REL come back
 ‘Many students went to the market but few came back’
- (25) *sukup anak sekula tai ha sekula tau yi*
 enough child school go at school day this
 ‘Enough students went to school today’

3.2 A-Quantifiers

A number of A-quantifiers are found in Uma Baha. Multiplicatives such as ‘twice’ are cardinal numerals followed by *livai* ‘times’.

⁵A relativizer is usually needed in wh-question formation. This could be due to wh-questions being formed on clefts, a phenomenon assumed to be common for many verb-initial Austronesian languages. Further investigation is needed here.

⁶Allophonic variation of *kado*’.

⁷*Kado*’ means both ‘many’ and ‘much’.

- (26) Jalong labo' dua livai kenai ia abei hata buah dei
 Jalong fall two times before 3.SG reach at.on fruit those
 'Jalong fell twice before he reached those fruits'

Other existential A-quantifiers include 'often', 'seldom' and 'a lot'. The word for 'often' in Uma Baha is *tangen-tangen*, which without reduplication, means 'always'.

- (27) tangen-tangen / mecat Jalong tai ke pasen tau kenem
 always-always / seldom Jalong go to market day sixth
 'Jalong often/seldom goes to the market on Saturday'

In the example below, what is unusual is that the quantifier, *kado'-kado'* meaning 'a lot' appears after the noun instead of before.

- (28) ubet tai mahep yap kado'-kado' ke'
 want go catch chicken many-many 1.SG
 'I am going to catch a lot of chickens'

Uma Baha does not have a monomorphemic word to express 'never'. In this language, 'never' is expressed by a focused negation marker and a reduplicated cardinal number 'one', *ca-ca* which follows the subject as shown in the example below.

- (29) ta'un ba Jalong ca-ca tai ke pasen tau kenem
 NEG1 PRT3 Jalong one-one go to market day sixth
 'Jalong never goes to the market on Saturday'
 (lit: Not even once does Jalong go to the market on Saturday.)

4 Generalized Universal (Co-intersective) Quantifiers

4.1 D-Quantifiers

The quantifiers meaning 'every' (collective/distributive) and 'each' (distributive) share the same form, *siket*, while 'all' (collective) has its own form, *mong*.

- (30) a. siket usa tai ke pasen
 every people go to market
 'Everybody went to the market'
 b. siket anak sekula rei terima' ca selawe'
 every child school these receive one token.of.appreciation
 'Each student received a token of appreciation'
- (31) mong anak sekula rei terima' ca selawe'
 all child school these receive one token.of.appreciation
 'All the students received a token of appreciation'

To express 'any' as a universal quantifier, the wh-word *i-yii*⁸, meaning 'who-who', is used instead.

⁸*I-yii* is the reduplicated form of *ii*, the wh-word for the interrogative 'who'.

- (32) i-yii' guro' fe seteng jawab
 who-who teacher PRT5 can answer
 'Any teacher can answer (the question)' (=every teacher can answer)

Similarly, to express 'whoever', a reduplicated wh-word is used followed by the particle *fe*⁹.

- (33) i-yii' fe de' seteng mahep yap en me' ne' ca selawe' kuma ia
 who-who PRT5 REL can catch chicken PRT6 1.PL give one token.of.appreciation to 3.SG
 'Whoever catches a chicken gets a token of appreciation from us'
 (lit: Whoever that can catch a chicken, we will give a token of appreciation to him.)

4.2 A-Quantifiers

There are two ways of expressing 'always' in Uma Baha. One way is to use *tangen* meaning 'always'. Another way is to use *bang* which means 'only'. In the example below, both *tangen* and *bang* can be used interchangeably.

- (34) bang / tangen masat le Jalong tai ke sekula
 only / always walk PRT4 Jalong go to school
 'Jalong always walk to school'

'Whenever' is also expressed in two different ways. The more common way is to use *bo*.

- (35) Jalong lagu bo ia bangen tawai
 Jalong sing whenever 3.SG happy feel
 'Jalong sings whenever he is happy'

The second way of expressing 'whenever' is through the reduplication of the wh-word 'when' followed by the particle *fe* as in *mi'an-mi'an fe* in (36). In this case, *mi'an-mi'an fe* has to come before the verb.

- (36) pabei mi'an-mi'an fe ia ta'un ube ti gayeng ye
 until when-when PRT5 3.SG NEG1 want do work that
 'He does not want to do that job ever' (lit: Until whenever, he does not want to do that job.)

5 Proportional Quatification

5.1 D-Quantifiers

In Uma Baha, 'most' is a reduplication of *kado* 'many'¹⁰. *Setenga* 'half' is most likely borrowed from Malay, *setengah*.

- (37) a. kado' kelunan cin lepo me' mudip hata pasen
 many people from village 1.PL live at.on city
 'Many people from our village live in the city'

⁹At this point of the investigation, we do not have a clear understanding of particles in Uma Baha. However, it has been pointed out to us that *fe* in this case has some kind of partitive meaning. We leave this for future research.

¹⁰It is possible that the quantifier 'most' does not exist in Uma Baha at all and *kado'-kado'* has the meaning of 'very many' instead. We leave this for future research.

- b. kado'-kado' anak sekula rei pehu'o kerja da hata sekula
 many-many child school these finish work 3.PL at.on school
 'Most students finish their work at school'
- c. setenga le anak sekula rei de' un test
 half PRT4 child school these REL have test
 'Half the students took the exam'

5.2 A-Quantifiers

We were only able to elicit two proportional A-quantifiers in Uma Baha, 'usually' and 'often'. The word for 'usually' seems to have been borrowed from Malay while the word for 'often' is the reduplication of the word for 'always', *tangen*.

- (38) a. biasa masat ba Jalong tai ke sekula
 usually walk PRT3 Jalong go to school
 'Jalong usually walks to school'
- b. tangen-tangen masat ba Jalong tai ke sekula
 always-always walk PRT3 Jalong go to school
 'Jalong often walks to school'

We note that *tangen-tangen* is also listed as an existential in section 3.2. At this point, it remains unclear whether it has the meaning of 'many times' or 'a majority of the times'.

6 Morphosyntactically Complex Quantifiers

6.1 Complex D-Quantifiers

6.1.1 Cardinal Quantifiers

The notions of 'more' and 'less' are expressed using *lebei* and *kurang*. When they are used together, followed by a cardinal number, the phrase conveys the meaning 'more or less'.

- (39) a. (lebei cin) lema usa anak sekula rei de' tai masat ke sekula
 (more from) five CLASS child school these REL go walk to school
 '(More than) five students walk to school'
- b. lebei kurang pulo' usa anak sekula rei de' tai masat ke sekula
 more less ten CLASS child school these REL go walk to school
 'About (more or less) ten students walk to school'

Another way to express 'about (cardinal number)' is to use a syntactic complex phrase *nyeng tai abei* (*cardinal number*) which means 'almost reaching (cardinal number)'.

- (40) nyeng tai abei dua pulo' ba anak sekula di de' tai masat ke sekula
 almost go reach two ten PRT3 child school these REL go walk to school
 'About twenty students walk to school'

We were not able to elicit any complex cardinal quantifiers such as ‘uncountably’ or ‘surprisingly many’. However, to express the notion of ‘infinitely many’, the word for ‘many’, *kado*’ is reduplicated and it is followed by the adverb ‘very’, *lan*.

- (41) *kado'-kado' lan bintang hata langit*
 many-many very star at.on sky
 ‘There are infinitely many stars in the sky’

6.1.2 Value Judgment Cardinals

The value judgment quantifiers as described in section 3.1 can be modified by adding the adverb ‘very’ after the quantifier or by adding a negation before the quantifier.

- (42) a. *kado' lan-lan kenai guro' hata sekula tau yi*
 many very-very come teacher at.on school day this
 ‘Too many teachers came to school today’
 b. *ta'un sukup guro' nai ke sekula tau yi*
 NEG1 enough teacher come to school day this
 ‘Not enough teachers came to school today’

6.1.3 Exception Modifiers

We were not able to elicit any complex exception modifiers from our language consultants. When asked for a sentence like ‘no student but John came’, we got ‘only John came’. We included the sentences we obtained in the examples below as well as the intended sentences.

- (43) a. *bang Jalong le nai ke sekula tau yi*
 only Jalong PRT4 come to school day this
 ‘Only Jalong came to school today’
 Intended S: No student but Jalong came to school.
 b. *bang Jalong le ta'un nai ke sekula tau yi*
 only Jalong PRT4 NEG1 come to school day this
 ‘Only Jalong did not come to school today’
 Intended S: Every student but Jalong came to school.
 c. *bang dua le anak sekula dei de' ta'un tai sekula tau yi*
 only two PRT4 child school those REL NEG1 go school day this
 ‘Only two students didn’t go to school today’
 Intended S: All but two students went to school.
 d. *kado'-kado' anak sekula rei lepo' ti kerja da*
 many-many child school these already PRT7 work 3.PL
 ‘Most of the students finish their homework’
 Intended S: Almost every student finishes their homework.

For more complex sentences such as ‘most houses except two near the river are painted’, our consultants would split them into two sentences, ‘most houses are painted’ and ‘only two near the river are not’.

- (44) kado'-kado' lamin nyeng sungai jei du lepo' ngecat. bang dua re de' ta'un
 many-many house near river those people already paint. only two PRT1 REL NEG1
 'Most houses near the river are painted. Only two of those are not'
 Intended S: Most houses except the two near the river are painted

6.1.4 Proportional Quantifiers

Modified proportional quantifiers in Uma Baha look similar to modified cardinal quantifiers.

- (45) a. lebei cin / nyeng tai / lebei kurang / kurang tata setenga usa anak sekula rei baca
 more from / near go / more less / less than half CLASS child school these read
 kitab
 book
 'More than / Nearly / About / Less than half of the students read the book'
- b. lebei tata tujo' usa cin mong pulo' usa anak sekula rei baca kitab
 more than seven CLASS from all ten CLASS child school these read book
 'More than seven out of the ten students read the book'
- c. bang ca cin pulo' usa anak sekula rei baca kitab
 only one from ten CLASS child school these read book
 'Only one student in ten read the book'

It is common for Kenyah Uma Baha speakers to borrow words from Malay when there are no words to express certain concepts such as percentage and fractions. Thus the word for 'percent' in the example below is taken from Malay. To express 'less than a third', our language consultants gave an expression that is similar to Malay, *kurang daripada satu pertiga*.

- (46) enem pulo' peratus cin mong du de' mudip hata lepo kerja hata keto
 six ten percent from all people REL live at.on village work at.on field
 'Sixty percent of the villagers are farmers'
- (47) kurang tata ca cin telu du de' mudip hata lepo kerja hata keto
 less than one from three people REL live at.on village work at.on field
 'Less than a third of the villagers are farmers'

Other complex proportional quantifiers are as follows:

- (48) a. kado'-kado' ru de' mudip hata lepo kerja hata keto
 many-many people REL live at.on village work at.on field
 'A large majority of the villagers are farmers'
- b. Mong du de' mudip hata lepo kerja hata keto
 all people REL live at.on village work at.on field
 'All of the villagers are farmers'

We note that *mong*, 'all', is both co-intersective and proportional (100% of); so is 'some' (more than 0%).

6.1.5 Boolean Compounds

Compounds like ‘not all’ are expressed with the negative *tak* preceding the quantifier as illustrated below.

- (49) tak mong du de’ uyan keto tai kerja tau yi
NEG2 all people REL work field go work day this
‘Not all the farmers work today’

Uma Baha does not have words to express ‘whether’, ‘either’ and ‘neither’. In all the cases below, Boolean connectives seem to combine with the quantifiers to form constituents.

- (50) a. paling kurang dua usa tapi ta’un lebei cin pulo’ du tai hata keto tau yi
most less two CLASS but NEG1 more from ten people go at.on field day this
‘At least two but not more than ten farmers will work today’
- b. mase’ keritut atau ka’do ru tai keto tau yi
maybe few or many people go field day this
‘Maybe very few or else very many farmers will work today’
- c. kado’-kado’ ru de’ uyan keto bangen tawai tapi tak jei mong-mong du
many-many people REL work field happy feel but NEG2 that all-all people
‘Most but not all farmers are happy’
- d. ta’un lebei tata ca usa cin pulo’ usa re guro’ di de’ nai hata sekula
NEG1 more than one CLASS from ten CLASS PRT1 teacher these REL come at.on school
tau yi
day this
‘Not more than one teacher in ten came to school today’

6.1.6 Partitive Constructions

Uma Baha does not use prepositions to form a partitive construction. Instead, the quantifiers are affixed directly to the noun.

- (51) a. ini defalai asu Jalong de’ luto’
EXT1 some dog Jalong REL sleep
‘Some of Jalong’s dogs were sleeping’
- b. kado’-kado’ luto’ asu Jalong tapi tak fe mong da
many-many sleep dog Jalong but NEG2 PRT5 all 3.PL
‘Most but not all of Jalong’s dogs were sleeping’

When there is negation in the sentence, the partitive construction becomes more complex with the inclusion of *sabi ca* ‘even one’ in the DP.

- (52) sabi ca usa fe ru de’ ngelasit di ta’un du lepo’ takap
even one CLASS PRT5 people REL steal these NEG1 people already catch
‘None of those thieves were caught’ (lit: Even one of the thieves, they have not caught.)

6.2 Complex A-Quantifiers

6.2.1 Cardinal Quantifiers

Cardinal quantifiers are modifiable:

- (53) a. bang dua livai / lebei cin lema livai ne kenai Jalong hata Sibū
only two times / more from five times PRT8 come Jalong at.on Sibū
'Jalong has been to Sibū exactly twice / more than five times'
- b. Bungan tai masat hata pasen hampir siket tau kelema
Bungan go walk at.on market near every day fifth
'Bungan walks to the market on almost every Friday'¹¹
- c. dua livai kubaen iho' re Bungan tai masat hata parson
two times compare 2.SG PRT1 Bungan go walk at.on market
'Bungan walks to the market twice as often as you do'
- d. dua livai kubaen tangen ko' nisep tua' re Jalong nisep
two times compare always 2.SG drink tua' PRT1 Jalong drink
'Jalong drinks tua' twice as much as you do'¹²
- e. kerja lema tau dalem ca migu Jalong, lema pulo' migu dalem ca uman. telu pulo' uman
work five day in one week Jalong, five ten week in one year. three ten year
re ia kerja mihei dise'
PRT1 3.SG work like.this EVI
'Jalong worked five days a week, fifty weeks a year for thirty years'¹³

6.2.2 Boolean Compounds

As with D-quantifiers, Boolean connectives combine with the A-quantifiers to form constituents such as 'at least twice but not more than five times' in (54a) and 'on Saturdays and on holidays' in (54b).

- (54) a. Jalong lepo' nisep tua' paling kurang dua livai re tapi ta'un lebei cin lema livai tau
Jalong already drink tua' most less two times PRT1 but NEG1 more from five time day
yi
this
'Jalong has drunk tua' at least twice but not more than five times today'
- b. baluo' Jalong taga mau taup tau kenem ngan taup tau ru ta'un kerja kecuali
it.has.been.that Jalong sleep late night day sixth and night day people NEG1 work except
bo tau Gawai
whenever day Gawai
'Jalong sleeps late on Saturdays and on holidays except for Gawai'¹⁴

7 Comparative Quantifiers

Uma Baha constructs comparatives by attaching a quantifier with *hado'*, which is 'many', followed by *tata*, which means 'than', after the first noun.

¹¹ *Hampir* meaning 'near' is borrowed from Malay, as there is no word for 'almost' in Uma Baha.

¹² *Tua'* is an alcoholic drink that is common in Sarawak.

¹³ *Dise'* is glossed as an evidential marker but we are not completely certain at this point.

¹⁴ *Gawai* is the harvest festival.

- (55) a. sahai ngelaii lebei hado' ngan anak sekula tata guro'
 foreigner talk more many with child school than teacher
 'The foreigner talked to more students than teachers'
- b. sahai ngelaii dua livai hado' ngan anak sekula kubaen ngan guro'
 foreigner talk two times many with child school compare with teacher
 'The foreigner talked to twice as many students as teachers'
- c. sahai ngelaii ngan anak sekula kuwe' kado' ngan guro'
 foreigner talk with child school same many with teacher
 'The foreigner talked to the same number of students as teachers'

8 Type (2) Quantifiers

Type (2) quantifiers can be found in Uma Baha as well, including proportional ones as shown in (56d).

- (56) a. tengen kelunan, tengen pengubet da
 different people different preference 3.PL
 'Different people like different things'
- b. Jalong ngan Bungan mudip pehenyeng lepo
 Jalong and Bungan live neighboring village
 'Jalong and Bungan live in neighboring villages'
- c. ta'un Jalong ca-ca pudip pu'un buah jei lebei tata ca livai
 NEG1 Jalong one-one plant tree fruit these more than one time
 'Jalong never plants the same fruit trees more than once'
- d. baluo' lakau de' lahi tata de' leto
 it.has.been.that tall REL male than REL female
 'Men are usually taller than women'

9 Distributive Numerals and Binominal 'Each'

Uma Baha makes a clear distinction between distributive meanings, as seen in (57a), and collective meanings, as seen in (57b).

- (57) a. kelunan de' ti keto rei pudip lema pu'un
 people REL work field these plant five tree
 'The farmers planted five trees (each)'
- b. kelunan de' ti keto rei pudip lema pu'un buah taang i'a
 people REL work field these plant five tree fruit between 3.PL
 'The farmers plant five fruit trees between them'

Siket meaning 'each' (can be 'every' as well) typically has a distributive meaning.

- (58) siket kelunan de' ti keto rei pudip lema pu'un
 each people REL work field these plant five tree
 'Each farmer planted five trees'

10 Mass Quantifiers and Noun Classifiers

We encountered only one noun classifier in Uma Baha that is used frequently. *Usa* is a classifier used for animate beings but more commonly reserved for people.

- (59) ca usa kelunan
one CLASS person
'one person'

We were not able to find cases of mass nouns quantified by numeral classifiers. Mass nouns are typically quantified using container nouns or measure words.

- (60) a. dua butou tua'
two bottle tua'
'two bottles of tua' '
- b. kado' kutek macan
many box papaya
'many boxes of papaya'
- c. ca kilogram usen
one kilogram salt
'one kilogram of salt'

11 Existential Constructions

While Uma Baha has both *ini* and *un* as a existential markers, both words do not always appear in existential constructions, as seen in the examples below.

- (61) a. kado' lan-lan anak sekula dalem kelas nihi
many very-very child school in class now
'There are too many students in class now'
- b. lebei hado' leto tata lahi dalem kelas
more many female than male in class
'There are more women than men in the class'
- c. pelaga hado' usen dalem sup
too many salt in soup
'There is too much salt in the soup'

11.1 Negation in Existential

Negation in existential sentences is the same as negation in non-existential sentences, where *ta'un ba ca-ca*, as seen in the example below, is used at the beginning of a sentence.

- (62) ta'un ba ca-ca un anak sekula dalem kelas nihi
NEG1 PRT3 one-one EXT2 child school in class now
'There aren't any students in the class now' (lit: There is not even one student in class now.)

11.2 Existential Constructions and Inalienable Possession

It is unclear whether the existential construction can be used with inalienable possession as the existential marker *ini* is not needed, as seen in (63b), when *un* is a predicate asserting possession.

- (63) a. *ini anak dalem lamin*
EXT1 child in house
'There are children in the house'
- b. *lamin jei un dua tingkat*
house that have two floor
'That house has two floors'

12 Floating Quantifiers

'All' in Uma Baha is allowed to float.

- (64) a. *mong anak sekula nai hata sekula tau yi*
all child school come at.on school day this
'All the students came to school today'
- b. *anak sekula mong nai hata sekula tau yi*
child school all come at.on school day this
'The students all came to school today'

13 Bare Quantifiers

13.1 Bare Quantifiers as Predicates

Cardinal numerals and value judgment cardinals can function as predicate quantifiers in Uma Baha.

- (65) *kado' lan / pulo usa re anak sekula de' tai hata sekula*
many very / ten CLASS PRT1 child school REL go at.on school
'The students who went to school were many / ten'

13.2 Can Bare Quantifiers Function as Arguments?

The quantifiers that can function as objects are numerals and *defalai*, which can express 'a few', 'several', and 'some'.

- (66) a. *melai lan macan jadi ke' meli telu re / *mong / *siket*
cheap very papaya so 1.SG buy three PRT1 / *all / *each
'The papayas were cheap so I bought three / *all / *each'
- b. *melai lan macan jadi ke' meli defalai*
cheap very papaya so 1.SG buy some
'The papayas were cheap so I bought several/some/a few'

14 Relations Between Lexical, Universal, Existential and Interrogative Pronouns

Uma Baha forms quantifiers from interrogative pronouns by attaching the particle *fe* to a reduplicated wh-word.

- (67) a. *i-yii'* *fe*
 who-who PRT5
 'whoever'
- b. *inu-inu* *fe*
 what-what PRT5
 'whatever'
- c. *mi'an-mi'an* *fe*
 when-when PRT5
 'whenever'
- d. *kepi-kepi* *fe*
 where-where PRT5
 'wherever'
- e. *mehupin-mehupin* *fe*
 how-how PRT5
 'however'

Reduplications of 'what' *inu-inu* and 'who' *i-yii'* also function as indefinite pronouns. They can either be negative polarity items, as in (68a), where they appear in monotonic decreasing contexts, or free choice items as in (68b), where they take a universal interpretation.

- (68) a. *ta'un* *Jalong meli inu-inu*
 NEG1 *Jalong* buy what-what
 'Jalong did not buy anything'
- b. *Jalong meli inu-inu*
 Jalong buy what-what
 'Jalong bought everything'
- c. *ta'un* *Jalong ta'an i-yii'*
 NEG1 *Jalong* see who-who
 'Jalong didn't see anybody'
- d. *Jalong ta'an i-yii'*
 Jalong see who-who
 'Jalong saw everybody'

Negative existential and interrogative pronouns are not related in Uma Baha.

15 Decreasing D-Quantifiers

We did not encounter a monomorphemic word for 'no' in Uma Baha, but we did find intersective quantifiers like 'not more than two' and co-intersective quantifiers like 'not all'.

- (69) a. *sagi ca usa fe anak sekula ta'un nai hata sekula*
 even one CLASS PRT5 child school NEG1 come at.on school
 'Not even one student came to school'
 Intended S: No students came to school.
- b. *tak mong anak muat nange*
 NEG2 all child a.lot cry
 'Not all children cry a lot'
- c. *ta'un lebei cin dua usa anak de' ta'an suwi hata kebon*
 NEG1 more from two CLASS child REL see bird at.on garden
 'Not more than two children saw any birds in the garden'

15.1 Negative Polarity Items

We did not encounter any negative polarity items (NPI) such as 'ever' or 'any'. The only NPIs that we came across are reduplicated *wh*-words as seen in section 14, where *inu-inu* (what-what) can mean 'anything' and *i-yii* (who-who) can mean 'anybody'.

16 Distribution

The majority of quantified noun phrases in this study are found in subject or object position. Possessive quantifiers are also found in Uma Baha, as shown in (70c).

- (70) a. *kado' anak sekula tai ke pasen*
 many child school go to market
 'Many students went to the market'
- b. *ubet tai mahep yap kado'-kado' ke'*
 want go catch chicken many-many 1.SG
 'I am going to catch a lot of chickens'
- c. *Jalong ngelaii ngan siket usa docton anak sekula dei*
 Jalong talk with each CLASS doctor child school these
 'Jalong talked with each student's doctor'

17 One to One Dependency

One to one relationships are roughly parallel to the English equivalents.

- (71) *siket luang macan de' uban me' pudip de jadi pu'un macan bio'*
 every seed papaya REL PAST 1.PL plant PRT2 become tree papaya big
 'Every seed we planted grew into a big papaya tree'

18 Rate Phrases

Rate phrases in Uma Baha are also similar to English.

- (72) a. Jalong muwei silong ia telu livai dalem ca tau
 Jalong wash face 3.SG three time in one day
 ‘Jalong washes his face three times a day’
- b. ahe’ ngasa dua pulo’ kilometer ca tau
 1.SG run two ten kilometer one day
 ‘I run twenty kilometers a day’

19 Final Remarks

Uma Baha contains a monomorphemic ‘all’, which is *mong*, a monomorphemic ‘one’, which is *ca*, and a monomorphemic value judgment quantifier ‘many’, which is *kado*. However, it does not have a monomorphemic determiner for ‘no’. Uma Baha also distinguishes between collective ‘all’, which is *mong* and ‘each/every’, which is *siket*, a distributive quantifier.

There are far fewer A-quantifiers in Uma Baha compared to D-quantifiers. Some of the A-quantifiers are more complex, such as ‘often’ (*tangen-tangen*), ‘two times’ (*dua livai*), and ‘never’ (*ta’un...ca-ca*). However, ‘seldom’, which is *mecat*, is not complex.

Finally, Uma Baha expresses ‘only’ with *bang*, which can appear in the contexts below.

- (73) a. bang Jalong nai hata sekula
 only Jalong come at.on school
 ‘Only Jalong came to school’
- b. bang lema anak sekula rei nai hata sekula
 only five child school these come at.on school
 ‘Only five students came to school’
- c. bang pehalai Jalong, ta’un ia kacet
 only study Jalong, NEG1 3.SG dance
 ‘Jalong only studies, he does not dance’

20 Conclusions

Uma Baha can express a wide range of quantifiers using different constructions. As the data here was collected during a preliminary field work trip to Malaysia, there are still gaps in the paradigm. We hope to continue working on Uma Baha to provide a thorough grammar in the near future.

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