



The Shifting Sands of Time: Variable grammatical behaviour of time words in Takivatan Bunun

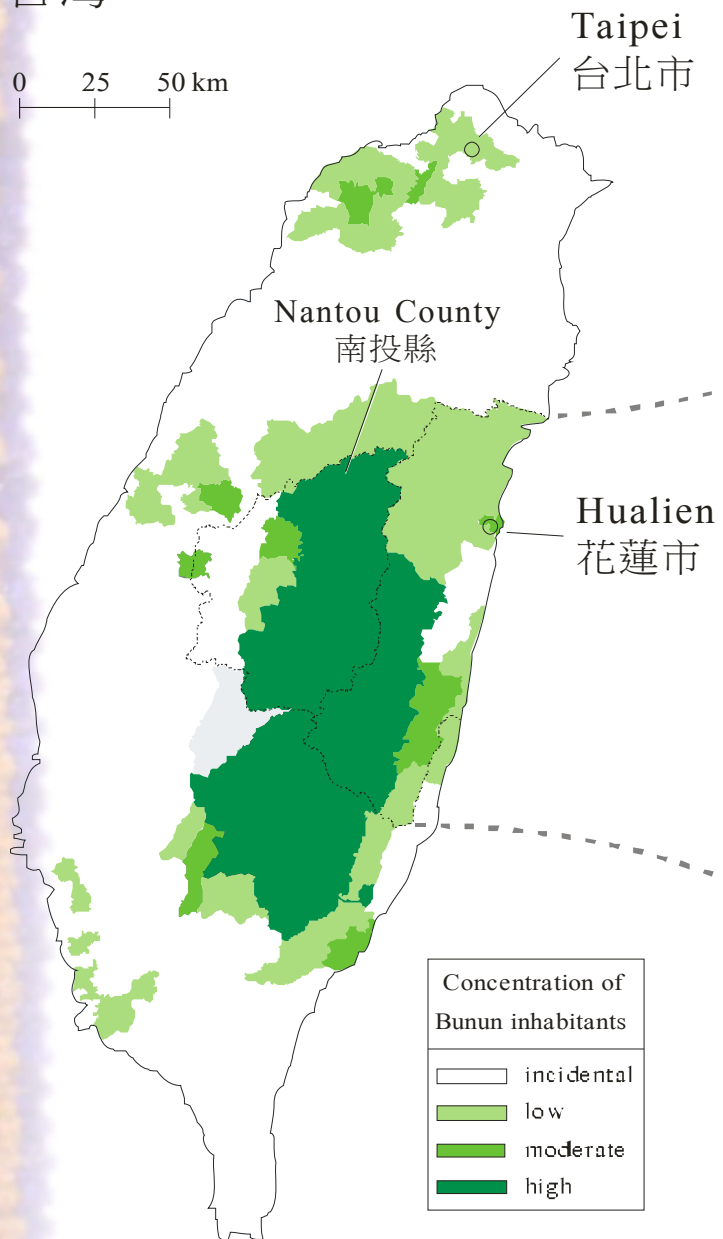
*WRTAL, Taipei
26-28 October 2011*

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TAIWAN
台灣

0 25 50 km



HUALIEN COUNTY
花蓮縣



Introduction

- Takivatan < Bunun < Austronesian
- Verb-initial language
- Focus system

Actor focus:

(1) *siḏa malḥaṇausta maduqta*

siḏa *malḥaṇaus-ta*

maduq-ta

take-AF shaman-DEF.REF.DIST millet-DEF.REF.DIST

‘The shaman took millet.’ (Adapted from TVN-012-001:69)

Introduction

Undergoer focus:

(2) *siðaun asik*

siða-un asik

take-UF shrub

‘The shrubs they gathered.’ (Adapted from
TVN-012-001:24)

Locative focus:

(3) *maqtu pasiðaʔanin ŋabul vanis*

maqtu pa-siða-an-in ŋabul vanis

can CAUS.DYN-take-LF-PRV antler wild.boar

‘(In that place) we can catch deer and wild boar.’
(TVN-008-002:47)

Time words

- There is no coherent class of adverbs in Takivatan
- There is a class of words that express place, manner and time (PTM words)
- The four most common time words:
 - *tudip* ‘then, at that time’ and *dip* ‘then’
 - *qabas* ‘in the old days, in earlier times’
 - *laupaku* ‘now, at the present moment’, *laupadau* ‘now’, *laupa* ‘now’ and *laupan* ‘a moment ago’
 - *haip* ‘today, now’

Time words

Form	No. of tokens	Tokens / minute of recorded text
<i>tudip</i>	170	0.91
<i>dip</i>	101	0.54
<i>qabas</i>	94	0.5
<i>laupaku</i>	58	0.31
<i>laupadau</i>	26	0.14
<i>laupa</i> (other forms)	19	0.1
<i>haip</i>	22	0.12

Time words

- They can occur in an unusual amount of positions in the clause.
- Classification of instances in the corpus
 - Position in the clause
 - Associated grammatical behaviours for each position
- In this study, I distinguished between **12** different positions

Note: 'invariant' in this talk means morphologically invariant, i.e. unable to be modified by bound morphology

Positions in the clause

1. Place-Time-Manner (PTM) slot:

- clause-final grammatical slot
- noun-like or prepositional-phrase-like behaviour
- all except *laupa* ‘now’ and *laupaŋ* ‘a moment ago’

(14) *Haiḏa mukalumaga tudip*

haiḏa mu-ka-lumaq-a

tudip

have ALL-make-house-LNK that.time

‘There were people that went there to build houses at that time’ (TVN-012-001:63)

Positions in the clause

2. Pre-verbal position with a general linker *-a*:

- immediately preceding the verb
- typically invariant
- *tudip* ‘then’ and *qabas* ‘in the old days’

(30) *Maupata qabasa paun tu titi?un tu masðaŋi*
maupa-ta *qabas-a*
thus-DEF.REF.DIST in.former.times-LNK
paun tu titi-un tu masðaŋ-i
be.said COMPL eat-UF COMPL same-PRT
‘This was how in the old days the meat was distributed in the
same way’ (TVN-012-001:124)

Positions in the clause

3. Pre-verbal position without a linker:

- same as previous
- *qabas*, *laupaku* ‘now’, and *laupadau* ‘now’

(X) *ʔisaq su uvaǾʔaǾ laupaku kuǾakuǾa?*

*ʔisaq su uvaǾʔaǾ **laupaku** kuǾakuǾa*

where 2S.N child now work

‘Where are your children working now?’ (TVN-xxx-xx1:97)

Positions in the clause

4. Between auxiliary and main verb:

- Occurs after an auxiliary or between auxiliaries, but in any case before the main verb
- Sometimes like 2-3 (invariant); sometimes like 6-7 (auxiliary)
- all forms

Positions in the clause

a) Invariant

- (16) *Amuq tudipi mastaʔan tudip tu manaskali* .
amuq tudip-i mastaʔan
though that.time-PRT most
tudip tu ma-naskal-i
that.time COMPL STAT-happy-PRT
'And those were most happy days.' (TVN-008-002:21)

b) Auxiliary-like

Positions in the clause

a) Invariant

b) Auxiliary-like

- (17) *A maupa muqna tudipin minliskin tu namaquaq pasi?adas qan sami*

<i>a</i>	<i>maupa</i>	<i>muqna</i>	<i>tudip-in</i>
INTER	thus	next	that.time-PRV
<i>min-liskin</i>	<i>tu</i>	<i>na-maquaq</i>	
INCH-believe	COMPL	IRR-how.come	
<i>pasi-adas</i>	<i>qan</i>	<i>sam-i</i>	
SEPARATE-carry	with	1E.TOP-PRT	

‘Thus I again remember how we worked together in those times’ (TVN-008-002:164)

Positions in the clause

5. Following the main verb:

- immediately follows the main verb, or the main verb plus a core argument
- invariant
- *qabas, laupaku, laupadau, laupa*

(35) *haiða laupaku paun tu sia padantun maʔuvul*
*haiða **laupaku** paun tu*
have now be.said COMPL
sia padan-tun ma-ʔuvul
ANAPH reed.sp-DEF.REF.MED STAT-flexible
'and now there is what is called a flexible kind of reed'
(TVN-012-001:44)

Positions in the clause

6. First or only auxiliary without complementiser:

- initial position; typically can take verbal morphology
- verb-like behaviour; probably best analysed as an auxiliary
- all forms

(28) *maqabasi maupata naip qanupa*

ma-qabas-i

maupa-ta

DYN-in.former.times-PRT

thus-DEF.REF.DIST

naip

qanup-a

DEM.S.NVIS

hunt-SUBORD

‘When somebody wanted to go hunting in the past [...]’

(TVN-012-001:104)

Positions in the clause

7. First or only auxiliary followed by complementiser *tu*:

- initial position; followed by complementiser; verbal morphology sometimes possible
- verb-like behaviour, consistent with auxiliaries
- all forms except for *laupadau*, *laupa* (incl. *Laupaŋ*)

(20) [...] *tudipaŋ tu sia tupaun tu sinkuðakuða*
tudip-aŋ *tu* *sia* *tupa-un* *tu*
that.time-PROG COMPL ANAPH call-UF COMPL
sin-kuðakuða
RES.OBJ-work
‘[life ...] in those days that was called sinkuðakuða (a life of labour)’ (TVN-008-002:234)

Positions in the clause

8. Time word functions as main verb:

- Only element in the predicate; takes wide range of verb-related morphology
- all forms except for *laupaku* and *haip* ‘today’

Positions in the clause

- (21) *Aupa matudipa, nanuin tudip minliskin tu ni mamantuk tu*
aupa ***ma-tudip-a***
thus STAT-that.time-SUBORD
nanu-in tudip min-liskin tu
really-PRV that.time INCH-believe COMPL
ni CV-mantuk tu
NEG INTENS-genuine COMPL
'But in those days, it had really come to a point where I
acquired understanding that it wasn't genuinely so.'
(TVN-008-002:165)

Positions in the clause

9. Functions in locative/directional derivation:

- preceded by locative or directional prefix
- all forms except for *laupa* (incl. *laupañ*) and *haip*

(39) *Saulaupadau mastaʔan matunaskali Tama Diqanin tu*
***sau-laupa-dau** mastaʔan matu-naskal-i*
TERMIN-now-EMO most EMOT-happy-PRT
tama diqanin tu
father heaven COMPL
'Till today, I am very grateful to the Father in Heaven'
(TVN-008-002:163)

Positions in the clause

10. Functions as a discourse marker:

- no grammatical function in clause
- invariant
- only *dip* ‘then’ in the form *dip tu*

(23) *Aupa natudipin, dip tu, paun tu madaiṇa kainaskalan*
aupa na-tudip-in dip tu paun
thus IRR-that.time-PRV then COMPL be.said
tu madaiṇ-a ka-i-naskal-an
COMPL big-LNK ASSOC.DYN-PST-beautiful-LF
‘Thus in those days, this was considered to be a very happy
event.’ (TVN-012-001:59)

Positions in the clause

11. Attribute of a noun phrase:

- pre- or post-nominal attributive constructions
- *qabas, laupaku, laupadau, haip*

(42) *Uninaŋ haip tu sanavan*

*uninaŋ **haip** tu sanavan*

thank.you today ATTR evening

‘Thank you on this evening’ (TVN-012-003:79)

Positions in the clause

12. Head of a noun phrase:

- noun-like behaviour
- *tudip, qabas, laupaku*

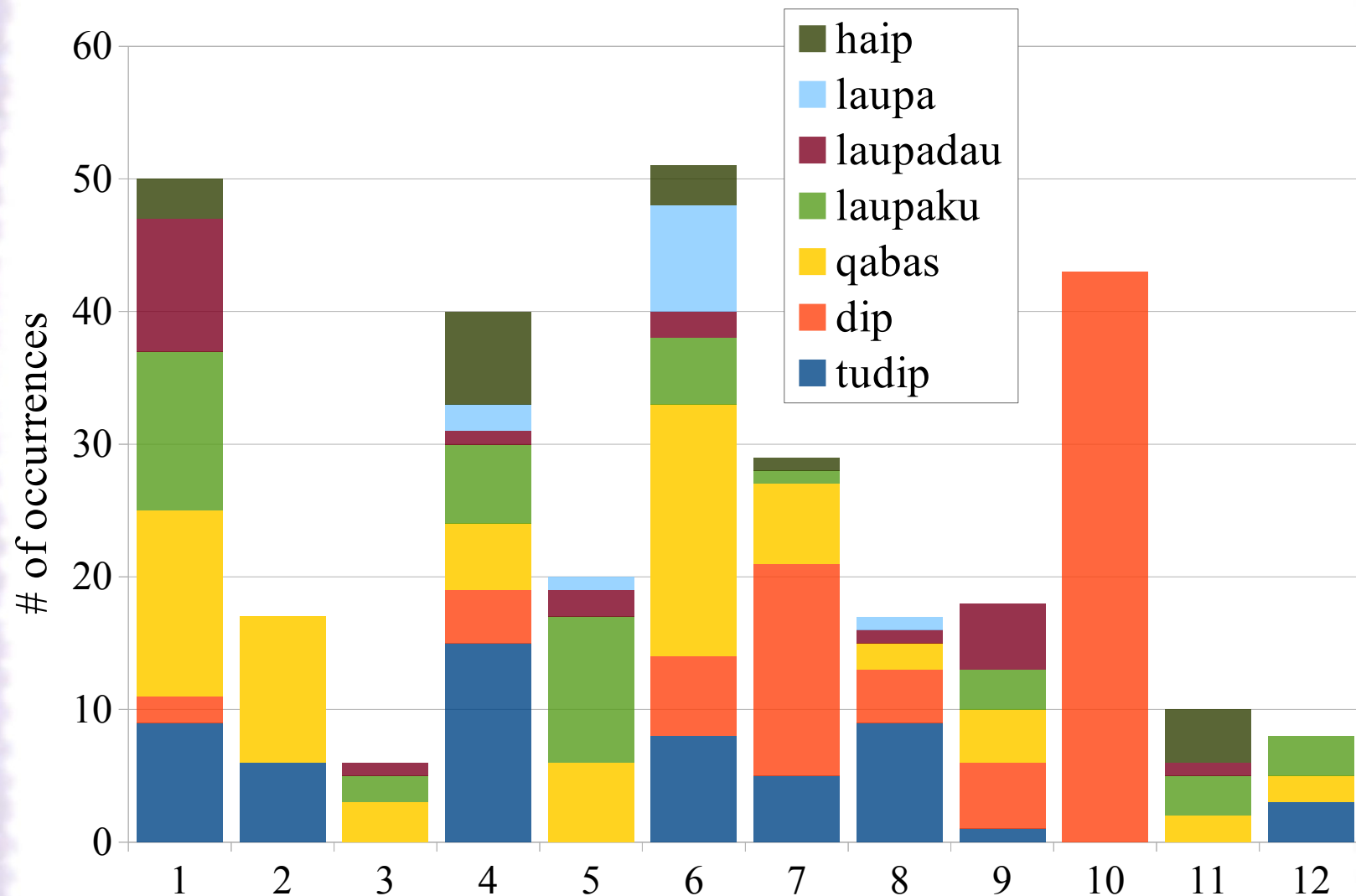
(282) *Aupa, maisna?ita san laupaku*

*aupa maisna-?ita san **laupaku***

thus ABL-then at now

‘Thus, from that time until now’ (TVN-003-xxx:7)

	Tudip		Dip		Qabas		Laupaku		Laupadau		Laupa		Haip	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1. PTM slot	9	16	2	3	14	19	12	26	10	43	0	0	3	17
2. Pre-verbal with linker <i>-a</i>	6	11	0	0	11	15	0	0	0	0	0	0	0	0
3. Pre-verbal without linker	0	0	0	0	3	4	2	4	1	4	0	0	0	0
4. Between AUX and main verb	15	27	4	5	5	7	6	13	1	4	2	17	7	39
5. After the main verb	0	0	0	0	6	8	11	24	2	9	1	8	0	0
6. First or only AUX without complementiser <i>tu</i>	8	14	6	8	19	26	5	11	2	9	8	67	3	17
7. AUX with complementiser <i>tu</i>	5	9	16	20	6	8	1	2	0	0	0	0	1	6
8. Main verb	9	16	4	5	2	3	0	0	1	4	1	8	0	0
9. Directional or locative derivation	1	2	5	6	4	5	3	7	5	22	0	0	0	0
10. Discourse marker	0	0	43	54	0	0	0	0	0	0	0	0	0	0
11. Attribute of an NP	0	0	0	0	2	3	3	7	1	4	0	0	4	22
12. Head of an NP	3	5	0	0	2	3	3	7	0	0	0	0	0	0
TOTAL	56		80		74		46		23		12		18	
NO. OF DIFFERENT SLOTS	8		7		11		9		8		4		23	



Positions

- | | |
|---|---------------------------------------|
| 1. PTM slot | 7. AUX with complementiser <i>tu</i> |
| 2. Pre-verbal with linker <i>-a</i> | 8. Main verb |
| 3. Pre-verbal without linker | 9. Directional or locative derivation |
| 4. Between AUX and main verb | 10. Discourse marker |
| 5. After the main verb | 11. Attribute of an NP |
| 6. First or only AUX without complementiser <i>tu</i> | 12. Head of an NP |

Conclusion

- Time words in Takivatan Bunun occur in an unusual number of positions in the clause
- Positions tend to be associated with grammatical behaviours
- Individual time words (and variants of time words) have different distributions
- There is interpersonal variation in the frequency distribution of time words



Grammatical restrictions

- Positional variability \neq free variation

English:

- (56) **Today** we are printing a special token to complete the voucher we gave you yesterday.
- (57) The Limit can **today** reveal chart star Felix's REAL name.
- (58) The monkeys are on your cars **today**.

Vs.

Takivatan:

Grammatical restrictions

Taktivatan:

- (48) *Laupaŋʔak taldanavin*
laupa-aŋ-ʔak *taldanav-in*
a.moment.ago-PROG-1S.TOP wash-PRV
'I just finished washing.' (TVN-xxx-xx1:166)
- (51) *daŋaǎn Sipun qabas*
daŋaǎn *Sipun* *qabas*
help-LF Japanese in.former.times
'In those days, the Japanese helped
in that place.' (TVN-012-002:46)

Grammatical restrictions

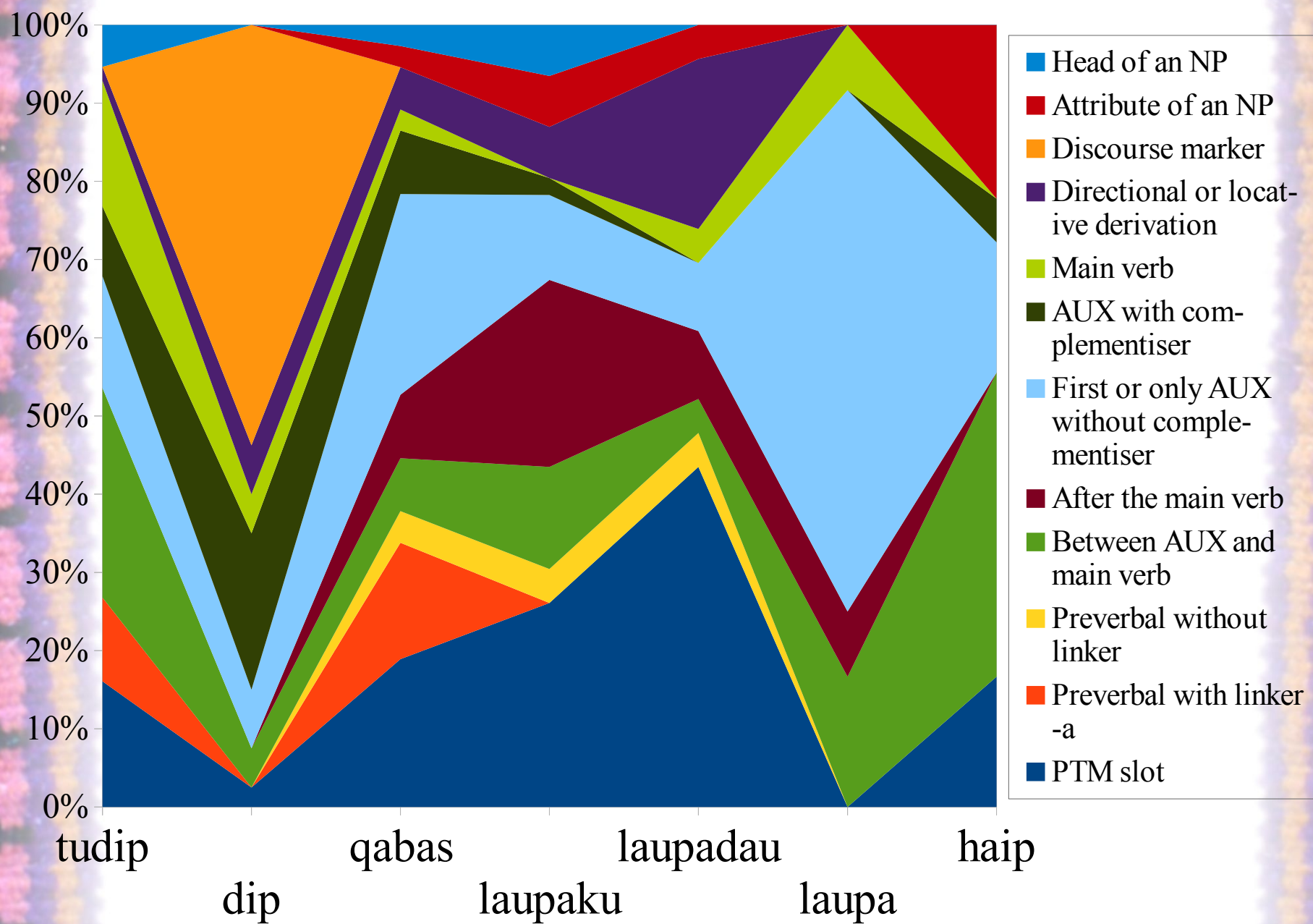
Takivatan: *Initial verbal slot*
Aspect *Bound pronoun* → **Verb-like**

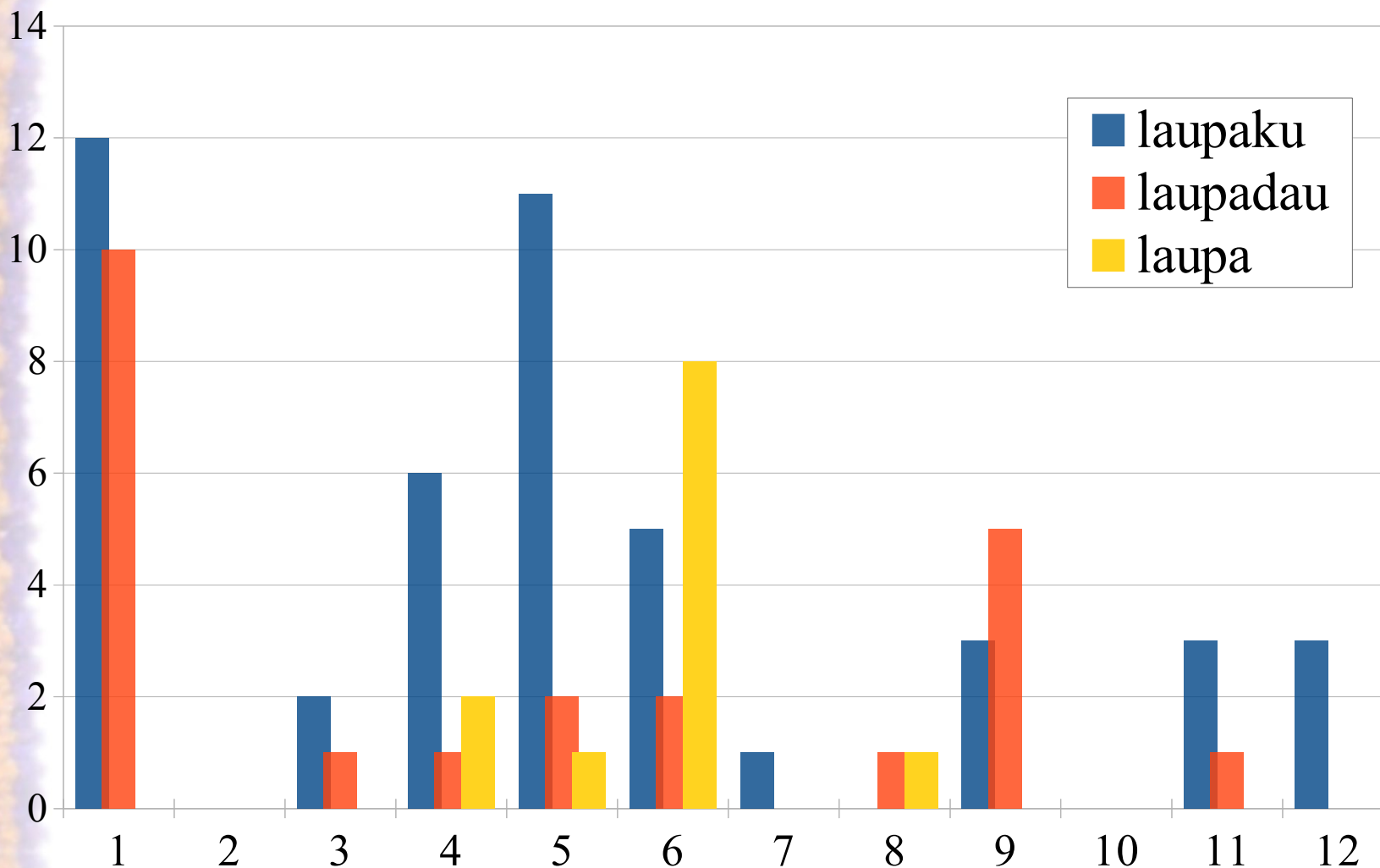
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 ‘I just finished washing.’ (TVN-xxx-xx1:166)

(51) *daŋaǎn Sipun qabas*
daŋaǎn-an *Sipun* *qabas* *Invariable*
Final slot
 help-LF Japanese in.former.times
 ‘In those days, the Japanese helped
 in that place.’ (TVN-012-002:46) → **Noun-like**

(Sub-)lexical restrictions

- Time words are not evenly distributed across positional options
- Variation between time words
- Variation between different forms of the same time word
- There is no clear semantic motivation for this variation





Positions

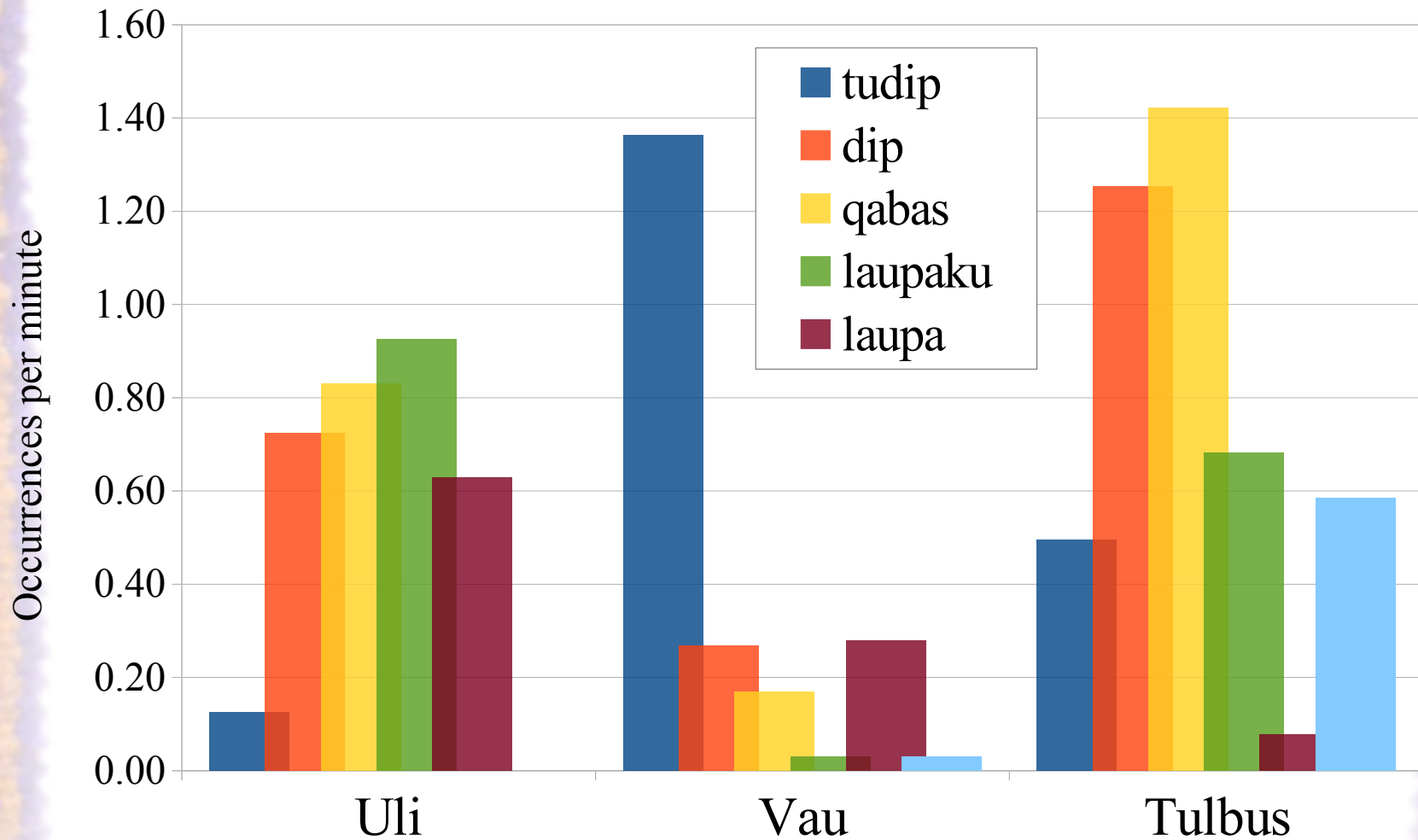
1. PTM slot
2. Pre-verbal with linker *-a*
3. Pre-verbal without linker
4. Between AUX and main verb
5. After the main verb
6. First or only AUX without complementiser *tu*

7. AUX with complementiser *tu*
8. Main verb
9. Directional or locative derivation
10. Discourse marker
11. Attribute of an NP
12. Head of an NP

Interpersonal variation

- Selection of particular time words is strongly influenced by individual preferences
- This skewing does not appear to have an influence on positional variation

Interpersonal variation



Explanations

What is the reason / cause of this positional and grammatical variation?

1. Structural explanations

- Scope (~ quantifier scope)
 - Not really clear how this would work for time words
- Iconicity (syntactic distance indicates conceptual distance)
 - the closer a time word occurs to the main verb, the more tightly integrated its temporal semantics are in the event expressed by that verb
 - Again, not clear how this would make sense

Explanations

2. Cognitive-functional explanations

- The notion of temporal setting is inherently ambiguous in language
 - No real evidence
 - Does not explain why Takivatan is different from English
- Different positions reflect differences in information structure
 - Clause-initial position → verb-like → encodes a relationship
 - Clause-final position → noun-like → encodes a referent
 - Position as an indicator of the importance of the temporal setting to the development of the event

Explanations

3. Historical-typological explanations

- Temporal expressions are cross-linguistically ambiguous
 - Variable position of time adverbials in other languages
 - But what does this explain? (Symptom rather than explanation)
- A result of word class ambiguity in Austronesian languages
 - The word class of many lexical roots and stems depends on the syntactic environment in which they occur
 - Words that do not typically function as the semantic head of the predicate or core arguments are more likely to have a variable word class (and therefore position)

A person is shown in profile, facing right, wearing a traditional headdress. The headdress features a blue base with a red band adorned with large, circular, multi-colored ornaments (yellow, green, and white) and a single feather. To the right of the person is a vertical strip of a colorful woven textile with a repeating diamond pattern in red, yellow, blue, and white. The background is a plain, light color.

**Thank you
very much for
your attention**